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8-1-2003

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* * * * * Welcome to STN International * * * * *

NEWS 1      Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Apr 08 "Ask CAS" for self-help around the clock
NEWS 3 Apr 09 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4 Apr 09 ZDB will be removed from STN
NEWS 5 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
              saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
              now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 26 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27 Oct 21 EVENTLINE has been reloaded
NEWS 28 Oct 24 BEILSTEIN adds new search fields
NEWS 29 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 30 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 31 Nov 18 DKILIT has been renamed APOLLIT
NEWS 32 Nov 25 More calculated properties added to REGISTRY
NEWS 33 Dec 02 TIBKAT will be removed from STN
NEWS 34 Dec 04 CSA files on STN
NEWS 35 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36 Dec 17 TOXCENTER enhanced with additional content
NEWS 37 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 38 Dec 30 ISMEC no longer available
NEWS 39 Jan 13 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 40 Jan 21 NUTRACEUT offering one free connect hour in February 2003
NEWS 41 Jan 21 PHARMAML offering one free connect hour in February 2003
NEWS 42 Jan 29 Simultaneous left and right truncation added to COMPENDEX,
              ENERGY, INSPEC

NEWS EXPRESS January 6 CURRENT WINDOWS VERSION IS V6.01a,
              CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
              AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
NEWS HOURS   STN Operating Hours Plus Help Desk Availability
NEWS INTER   General Internet Information
NEWS LOGIN   Welcome Banner and News Items

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NEWS WWW CAS World Wide Web Site (general information)

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STRUCTURE FILE UPDATES: 4 FEB 2003 HIGHEST RN 485752-98-5
DICTIONARY FILE UPDATES: 4 FEB 2003 HIGHEST RN 485752-98-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> S TONE 201
680 TONE
6938 201
L1 1 TONE 201
(TONE(W)201)

=> D

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
RN 217439-84-4 REGISTRY
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with butyl 2-propenoate, Desmodur N 3300, ethenylbenzene, methyl 2-methyl-2-propenoate and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, Desmodur N 3300, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate and .alpha.,.alpha.'-(oxydi-2,1-

ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] (9CI)
 CN 2-Propenoic acid, butyl ester, polymer with Desmodur N 3300, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] (9CI)
 CN Benzene, ethenyl-, polymer with butyl 2-propenoate, Desmodur N 3300, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] (9CI)
 CN Desmodur N 3300, polymer with butyl 2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]] (9CI)
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, polymer with butyl 2-propenoate, Desmodur N 3300, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI)

OTHER NAMES:

CN **Butyl acrylate-Desmodur N 3300-hydroxyethyl methacrylate-methyl methacrylate-styrene-Tone 201 copolymer**
 MF (C8 H8 . C7 H12 O2 . C6 H10 O3 . (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3 . C5 H8 O2 . Unspecified)x
 CI PMS
 PCT Manual component, Polyacrylic, Polyester, Polystyrene, Polyurethane, Polyurethane formed
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

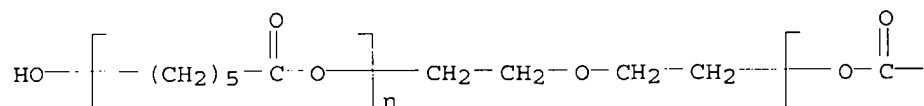
CRN 104559-01-5
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

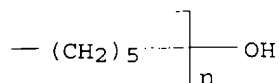
CM 2

CRN 50327-24-7
 CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3
 CCI PMS

PAGE 1-A

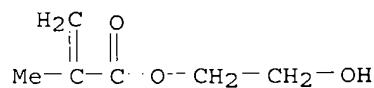


PAGE 1-B



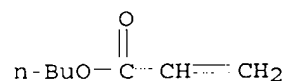
CM 3

CRN 868-77-9
 CMF C6 H10 O3



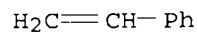
CM 4

CRN 141-32-2
CMF C7 H12 O2



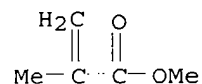
CM 5

CRN 100-42-5
CMF C8 H8



CM 6

CRN 80-62-6
CMF C5 H8 O2



2 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES IN FILE CAPLUS (1962 TO DATE)

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FILE LAST UPDATED: 30 Jan 2003 (20030130/ED)

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=> S TONE 201
23961 TONE
25152 201
L2 5 TONE 201
(TONE(W)201)

=> D ALL 1-5

L2 ANSWER 1 OF 5 CA COPYRIGHT 2003 ACS
AN 136:38830 CA
TI Water- and oil-repellent fluorochemical composition for fibers, films and
coatings
IN Jariwala, Chetan P.; Klun, Thomas P.; Linert, Jeffrey G.; Stern, Richard
M.
PA 3M Innovative Properties Company, USA
SO PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM D06M015-507
ICS C08L067-02; C08G063-68
CC 40-10 (Textiles and Fibers)
Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	WO 2001096654	A1	20011220	WO 2000-US29420	20001025
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2000-592105 A 20000612

AB A water- and oil-repellent compn. comprises (a) a repellency-imparting,
fluorochem. compn. comprising at least one fluorine-contg. arom. ester
oligomer comprising (1) at least two repeat units derived or derivable
from the reaction of at least one dicarboxylic acid (or a deriv. thereof)
and at least one polyol, with the proviso that either the dicarboxylic
acid (or deriv.) or the polyol (or both) is arom. or heteroarom., and (2)
fluorochem. endgroups derived or derivable from the reaction of (i) the
dicarboxylic acid (or deriv.) and at least one fluorine-contg. monoalc.,
or (ii) the polyol and at least one fluorine-contg. monocarboxylic acid;
and (b) a treatable substrate; with the proviso that, when the treatable
substrate comprises a mixt. of at least two polymers, the mixt. is
non-stratifying.

ST fluorochem repellent compn fiber film coating

IT Alcohols, uses

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(C8-16, .gamma.-.omega.-perfluoro, Zonyl BA-N, reaction products with
dicarboxylic acid and diol; water- and oil-repellent fluorochem. compn.
for fibers, films and coatings)

IT Polyoxyalkylenes, uses
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reaction products with dicarboxylic acid; water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT Plastics, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (thermoplastics; water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT Plastics, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (thermosetting; water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT Coating materials
 Films
 Nonwoven fabrics
 Oilproofing agents
 Textiles
 Waterproofing agents
 (water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT Polyesters, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT Fibers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT Perfluoro compounds
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (.gamma.-.omega.-, C8-16, alcs., Zonyl BA-N, reaction products with dicarboxylic acid and diol; water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT 99-63-8DP, Isophthaloyl chloride, reaction products with fluoroalc. and diol 108-46-3DP, Resorcinol, reaction products with dicarboxylic acid 111-46-6DP, Di(ethylene glycol), reaction products with dicarboxylic acid 111-50-2DP, Adipoyl chloride, reaction products with fluoroalc. and diol 126-30-7DP, 2,2-Dimethyl-1,3-propanediol, reaction products with dicarboxylic acid 504-63-2DP, 1,3-Propanediol, reaction products with dicarboxylic acid 629-11-8DP, 1,6-Hexanediol, reaction products with fluoroalc. and dicarboxylic acid 1459-93-4DP, Dimethylisophthalate, reaction products with fluoroalc. and diol 1691-99-2DP, Fluorad FC 10, reaction products with dicarboxylic acid and diol 25322-69-4DP, Polypropylene glycol, reaction products with dicarboxylic acid 25916-41-0DP, reaction products with dicarboxylic acid 34454-97-2DP, reaction products with dicarboxylic acid and diol 50327-24-7DP, **Tone 201**, reaction products with dicarboxylic acid 156327-07-0DP, X 22-160AS, reaction products with dicarboxylic acid 179799-99-6DP, Empol 1070, reaction products with dicarboxylic acid 380463-60-5P 380463-61-6P, 1,6-Hexanediol-isophthaloyl chloride-terephthaloyl chloride copolymer Fluorad FC 10 diester 380463-62-7P, 1,6-Hexanediol-terephthaloyl chloride copolymer MeFOSE diester 380463-63-8P 380463-64-9P 380463-65-0P 380463-66-1P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT 25038-59-9, PET, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT 85-44-9, Phthalic anhydride 7719-09-7, Thionyl chloride 24448-09-7
150872-29-0, Empol 1008
RL: RCT (Reactant); RACT (Reactant or reagent)
(water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

IT 64630-20-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(water- and oil-repellent fluorochem. compn. for fibers, films and coatings)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
(1) Daikin Ind Ltd; EP 0913517 A 1999 CA
(2) Dnin Dainippon Ink & Chem Kk; JP 56165072 A 1981 CA
(3) Minnesota Mining & Mfg; EP 0113217 A 1984 CA

L2 ANSWER 2 OF 5 CA COPYRIGHT 2003 ACS

AN 135:289103 CA

TI Catalysis of thermally curable high solids cycloaliphatic epoxy formulations

AU Subrayan, R. P.; Miller, Daniel J.; Emmet, Michael M.; Blank, Werner J.
CS King Industries, Inc., Norwalk, CT, 06852, USA
SO Polymeric Materials Science and Engineering (2001), 85, 132-134
CODEN: PMSEDG; ISSN: 0743-0515

PB American Chemical Society
DT Journal
LA English
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 67

AB King Industries has developed several cationic latent super acid catalysts for the thermally curing of epoxy systems. Among these, a quaternary ammonium hexafluoroantimonate salt is particularly suited for cycloaliph. epoxy formulations for cure at temps. as low as 80.degree., thus allowing application with temp. sensitive substrates. The properties of this catalyst and the cure characteristics of formulations contg. a cycloaliph. epoxide, or a cycloaliph. epoxide and a reactive diluent such as a polyol, cyclic ether, vinyl ether or an amino resin, are described in this paper. Crosslinking occurs by the homopolymn. of the epoxy groups or by the copolymn. of the epoxy group with the reactive diluent via a cationic mechanism.

ST latent super acid catalyst epoxy curing

IT Crosslinking
Crosslinking catalysts
Crosslinking enthalpy
Crosslinking kinetics
(cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT Quaternary ammonium compounds, uses
RL: CAT (Catalyst use); USES (Uses)
(cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT Aminoplasts
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT Epoxy resins, preparation
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT Soybean oil
RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT

(Reactant); PROC (Process); RACT (Reactant or reagent)
 (epoxidized, Vikoflex 7170; cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT 26590-20-5, AC 220E
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (AC 220E; cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT 6290-55-7
 RL: MOA (Modifier or additive use); USES (Uses)
 (cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT 3891-33-6, 1,4-Butanediol divinyl ether 9003-08-1, Cymel 303
 9011-05-6, Formaldehyde-urea copolymer 25085-98-7, ERL 4221
 50327-24-7, **Tone 201** 54735-63-6, Tone 301
 66810-89-7, Cymel 1123 104075-01-6, K-Flex 188
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT 9084-49-5P 232259-63-1P 364783-18-6P 364783-19-7P
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

IT 3047-32-3, Cyacure UVR 6000
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (diluent; cationic latent super acid catalysts for thermally curing of high solids cycloaliph. epoxy formulations)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; Product Bulletin, CYRACURE Cycloaliphatic Epoxides
- (2) Anon; Product Bulletin:Cycloaliphatic Epoxide Systems
- (3) Anon; Product Bulletin:SarCat CATIONIC PRODUCTS, SARTOMER
- (4) Anon; Product Bulletin:SarCat K126, SARTOMER
- (5) Anon; Trade Literature
- (6) Crivello, J; J Polym Sci:Part A: Polym Chem 1996, V34, P3231 CA
- (7) Ellis, B; Chemistry and Technology of EPOXY RESINS, Chapter 2 1993
- (8) Fouassier, J; Photoinitiation, Photopolymerization, and Photocuring, Chapter 4 1995
- (9) King Industries Inc; NACURE Super XC-7231 Catalyst
- (10) Malmstrom, E; Polym Mater:Sci & Eng 2001, V84, P295
- (11) May, C; Epoxy Resins Chemistry and Technology, Chapter 1 1988
- (12) Wicks, Z; Organic Coatings Science and Technology, Second Edition, Chapter 28 1999

L2 ANSWER 3 OF 5 CA COPYRIGHT 2003 ACS

AN 132:94720 CA

TI Low VOC ultrahigh solids thermosetting coating composition and method of its preparation

IN Jamasbi, Homayoun; Wohltmann, Kenneth Everett; Spanier, Joseph John

PA Rohm and Haas Co., USA

SO U.S., 15 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08G018-40

ICS C08G018-62; C09D175-04; C09D175-16

NCL 528048000

CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6015871	A	20000118	US 1998-88234	19980601

PRAI US 1998-88234

19980601

AB A polymeric component of the compn. includes a low mol. wt. polymer polymd. from a monomer mixt. contg. less than 45 percent by wt. of at least one active hydrogen contg. monomer. The polymn. takes place in the presence of a reactive diluent. By including the reactive diluent in the polymeric component of the compn., the amt. of solvent used in the compn. can be substantially reduced, while still providing a pot mix of the compn. with a viscosity sufficient to permit efficient coating application. The coatings from the compn. are durable; glossy; impact and solvent resistant; and adherent to a wide variety of substrates, such as automobile bumpers, road surfaces and office equipment. The surface of these coatings when subjected to scuffing or surface marring action can be substantially restored to its original condition by simply buffing or polishing the marred or scuffed surface. The invention is also directed to include a combination of chems. in the thermosetting compn. contg. an isocyanate crosslinking component. Such a combination simultaneously increases the pot life of the pot mix while decreasing the drying time of a coating from the pot mix at ambient temp. over a wide variety of substrate surfaces. A typical polymeric component was manufd. by polymn. of Bu acrylate 450, Me methacrylate 690, styrene 150, and hydroxyethyl methacrylate 220 g in the presence of **Tone 201**

(polycaprolactone diol) reactive diluent 359.2, 2,4-pentanedione 35, and di-tert-Bu peroxide 37.5 g at 190.degree..

ST thermosetting coating compn ultrahigh solids low VOC; polishable isocyanate crosslinked acrylic coating; storage stable hydroxy acrylic polymer isocyanate crosslinker coating compn; hydroxyethyl methacrylate copolymer polycaprolactone diol thermosetting coating; acrylic polymer polyester polyol isocyanate crosslinked coating

IT Polyesters, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(reactive diluents; low VOC ultrahigh solids thermosetting compns. for manuf. of coatings that are easily polishable after abrasion)

IT Coating materials

(thermosetting; low VOC ultrahigh solids thermosetting compns. for manuf. of coatings that are easily polishable after abrasion)

IT 822-06-0D, HDI, polyisocyanates

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(crosslinker; low VOC ultrahigh solids thermosetting compns. for manuf. of coatings that are easily polishable after abrasion)

IT 217439-84-4P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(cured coating; low VOC ultrahigh solids thermosetting compns. for manuf. of coatings that are easily polishable after abrasion)

IT 26588-80-7P 217439-83-3P, Butyl acrylate-hydroxyethyl methacrylate-isobornyl methacrylate-methyl methacrylate-styrene copolymer

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PREP (Preparation); PROC (Process)

(isocyanate-crosslinkable polymeric component; low VOC ultrahigh solids thermosetting compns. for manuf. of coatings that are easily polishable after abrasion)

IT 217439-85-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(low VOC ultrahigh solids thermosetting compns. for manuf. of coatings that are easily polishable after abrasion)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; GB 2064566 1981 CA

(2) Anon; CA 2213877 1988 CA

(3) Anon; WO 9620968 1996 CA

(4) Bederke; US 5663233 1997 CA

(5) Brand; US 4546160 1985 CA

- (6) Chang; US 4652605 1987 CA
- (7) Chattha; US 4284754 1981 CA
- (8) DelDonno; US 4426510 1984 CA
- (9) Kuhn; US 4515835 1985
- (10) Lenz; US 4578426 1986 CA

L2 ANSWER 4 OF 5 CA COPYRIGHT 2003 ACS
 AN 131:74623 CA
 TI Urethane/acrylate bead bond for retroreflective articles and sheeting manufacture
 IN Joseph, William D.; Pavelka, Lee A.
 PA Minnesota Mining and Manufacturing Company, USA
 SO PCT Int. Appl., 29 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM G02B005-128
 ICS C09D201-00; C09D005-33; C08G018-40
 CC 38-3 (Plastics Fabrication and Uses)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9932908	A1	19990701	WO 1998-US6914	19980406
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2315059	AA	19990701	CA 1998-2315059	19980406
	AU 9871036	A1	19990712	AU 1998-71036	19980406
	EP 1042693	A1	20001011	EP 1998-918041	19980406
	EP 1042693	B1	20021211		
	R: DE, FR, GB				
	JP 2001527222	T2	20011225	JP 2000-525772	19980406
PRAI	US 1997-996950	A	19971223		
	WO 1998-US6914	W	19980406		
AB	A retroreflective article uses a solventless bead bond compn. including a urethane/acrylate interpenetrating polymer network in which the urethane polymer is a thermoplastic and the acrylate component is a thermoset and applied as a mixt. of diisocyanates, diols, multifunctional acrylates and additives, thermally cured to a rubbery, thermoplastic solid. Retroreflective sheeting constructions which possess superior adhesion to acrylics, toughness, and high retro-reflectance are achieved by curing the multifunctional acrylates with radiation. The bead bond material has coating viscosity ~20,000 cP at 25.degree., enough mech. strength to remove the optical elements for the support, and thermoplastic property before and during embossing. A pretreated web of Al vapor-coated glass beads embedded in a temporary support film was adhesively coated with a bead bond formulation including IPDI-Tone 201 copolymer, UV absorbers, defoamer, tetraethylene glycol diacrylate (I) in one cartridge and Synfac 8024, defoamer, catalyst, and I from a second cartridge, prior to thermally curing.				
ST	polyurethane polyacrylate adhesive retroreflective beads; interpenetrating network adhesive reflective sheet				
IT	Glass beads				
	RL: TEM (Technical or engineered material use); USES (Uses) (aluminum vapor-coated retroreflective element; semi-interpenetrating network urethane/acrylate adhesive for retroreflective articles in retroreflective sheeting)				
IT	Polyurethanes, uses				
	RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)				

(polyester-; semi-interpenetrating network urethane/acrylate adhesive for retroreflective articles in retroreflective sheeting)

IT Adhesives
(semi-interpenetrating network urethane/acrylate adhesive for retroreflective articles in retroreflective sheeting)

IT Interpenetrating polymer networks
(semi-interpenetrating; urethane/acrylate bead bond for retroreflective articles)

IT Optical reflectors
(sheets; semi-interpenetrating network urethane/acrylate adhesive for retroreflective articles in retroreflective sheeting)

IT 57619-91-7, Tetraethylene glycol diacrylate homopolymer 228571-80-0
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(semi-interpenetrating network urethane/acrylate adhesive for retroreflective articles in retroreflective sheeting)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bailey; US 5064272 A 1991
- (2) Minnesota Mining and Manufacturing Company; WO 9728470 A1 1997
- (3) Nippon Paint Co Ltd; EP 0249505 A2 1987 CA
- (4) Wilson; US 5008142 A 1991 CA
- (5) Wilson; US 5262225 A 1993 CA

L2 ANSWER 5 OF 5 CA COPYRIGHT 2003 ACS

AN 130:53758 CA

TI Low VOC ultrahigh solids thermosetting coating composition and method of its preparation

IN Jamasbi, Homayoun; Wohltmann, Kenneth Everett; Spanier, Joseph John

PA Rohm and Haas Co., USA

SO Eur. Pat. Appl., 22 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C08G018-62

ICS C09D175-16

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 882750	A2	19981209	EP 1998-304203	19980528
	EP 882750	A3	19990224		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2236555	AA	19981205	CA 1998-2236555	19980501
	SG 71118	A1	20000321	SG 1998-1103	19980521
	AU 9868013	A1	19981210	AU 1998-68013	19980522
	CN 1201809	A	19981216	CN 1998-109645	19980604
	BR 9801782	A	20000321	BR 1998-1782	19980604
	JP 10338836	A2	19981222	JP 1998-157576	19980605
PRAI	US 1997-48749P	P	19970605		
AB	The present invention is directed to a low VOC ultra high solids thermosetting coating compn. A polymeric component of the compn. includes a low mol. wt. polymer polyimd. from a monomer mixt. contg. less than 45 percent by wt. of at least one active hydrogen contg. monomer. The polymn. takes place in the presence of a reactive diluent. By including the reactive diluent in the polymeric component of the compn., the amt. of solvent used in the compn. can be substantially reduced, while still providing a pot mix of the compn. with a viscosity sufficient to permit efficient coating application. The coatings from the compn. are durable; glossy; impact and solvent resistant; and adherent to a wide variety of substrates, such as automobile bumpers, road surfaces and office equipment. The surface of these coatings when subjected to scuffing or surface marring action can be substantially restored to its original condition by simply buffing or polishing the marred or scuffed surface.				

The invention is also directed to include a combination of chems. in the thermosetting compn. contg. an isocyanate cross linking component. Such a combination simultaneously increases the pot life of the pot mix while decreasing the drying time of a coating from the pot mix at ambient temp. over a wide variety of substrate surfaces.

ST low VOC ultrahigh solids thermosetting coating; polyurethane acrylate coating

IT Coating materials
(low VOC ultrahigh solids thermosetting coating compn. and method of its prepn.)

IT Polyurethanes, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low VOC ultrahigh solids thermosetting coating compn. and method of its prepn.)

IT 26588-80-7P 217439-83-3P, Butyl acrylate-2-hydroxyethyl methacrylate-isobornyl methacrylate-methyl methacrylate-styrene copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low VOC ultrahigh solids thermosetting coating compn. and method of its prepn.)

IT 217439-84-4P, Butyl acrylate-Desmodur N-3300-hydroxyethyl methacrylate-methyl methacrylate-styrene-**Tone 201** copolymer 217439-85-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(low VOC ultrahigh solids thermosetting coating compn. and method of its prepn.)

IT 25723-16-4, Pluracol TP440 50327-24-7, **Tone 201** 106392-12-5, Poly G-20-112
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(low VOC ultrahigh solids thermosetting coating compn. and method of its prepn.)

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	16.63	27.36
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-3.10	-3.10

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DICTIONARY FILE UPDATES: 4 FEB 2003 HIGHEST RN 485752-98-5

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP

PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> S 50327-24-7/RN

L3 1 50327-24-7/RN

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SET COMMAND COMPLETED

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YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):Y
THE ESTIMATED COST FOR THIS REQUEST IS 5.63 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:Y

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 50327-24-7 REGISTRY

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN .epsilon.-Caprolactone homopolymer diester with diethylene glycol, sru

CN Capa 200

CN Capa 205

CN Capa 215

CN Capa 226

CN Niax D 540

CN Niax D 560

CN Niax PCP 0200

CN Niax Polyol PCP 0200

CN PCP 0200

CN Poly(.epsilon.-caprolactone) diester with diethylene glycol, SRU

CN Tone 0200

CN Tone 0201

CN Tone 0220

CN Tone 0230

DR 54241-55-3, 112993-02-9, 51810-26-5, 112415-85-7, 69865-33-4, 92680-66-5,
92680-68-7, 82905-04-2, 39280-05-2, 218590-74-0

MF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3

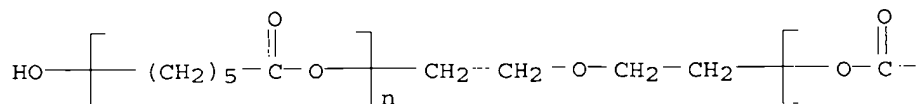
CI PMS, COM

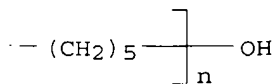
PCT Polyester

LC STN Files: BIOSIS, CA, CAPLUS, CIN, IFICDB, IFIPAT, IFIUDB, TOXCENTER,
USPAT2, USPATFULL

RELATED POLYMERS AVAILABLE WITH POLYLINK

PAGE 1-A





94 REFERENCES IN FILE CA (1962 TO DATE)
 47 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 95 REFERENCES IN FILE CAPLUS (1962 TO DATE)

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=> S EPON SU 8/CN
 L5 1 EPON SU 8/CN

=> D

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
 RN 177403-04-2 REGISTRY
 CN **Epon SU 8 (9CI)** (CA INDEX NAME)
 MF Unspecified
 CI PMS, COM, MAN
 PCT Manual registration
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 44 REFERENCES IN FILE CA (1962 TO DATE)
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 45 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> D L4 1-24

L4 ANSWER 1 OF 24 REGISTRY COPYRIGHT 2003 ACS
 RN 380913-46-2 REGISTRY
 CN **2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with Epon SU 8 (9CI)** (CA INDEX NAME)
 MF (C10 H20 O5 Si . Unspecified)x
 CI PMS
 PCT Manual component, Polyacrylic, Polyother
 SR CA
 LC STN Files: CA, CAPLUS

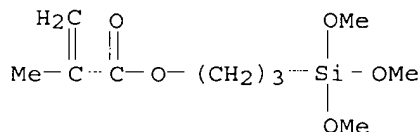
CM 1

CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

RN 269718-29-8 REGISTRY

CN Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione,
1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1), 2-chlorobenzoate (ester) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and
1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)

CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with
3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
Epon 160, Epon SU 8, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-
1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
2,4,6(1H,3H,5H)-trione (1:1), 2-chlorobenzoate (ester) (9CI)

CN 1,3-Isobenzofurandione, polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), 2-chlorobenzoate (ester) (9CI)

CN Epon 160, polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), 2-chlorobenzoate (ester) (9CI)

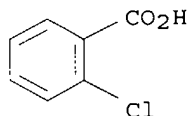
CN Epon SU 8, polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, hexahydromethyl-1,3-isobenzofurandione, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), 2-chlorobenzoate (ester) (9CI)

MF (C34 H52 N2 O4 . C9 H13 N7 . C9 H12 O3 . C8 H4 O3 . C3 H3 N3 O3 .

Unspecified . Unspecified)x . x C7 H5 Cl O2
PCT Manual component, Manual registration, Polyamide, Polyamide formed,
Polyester, Polyester formed, Polyhydrazide, Polyother
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 118-91-2
CMF C7 H5 Cl O2



CM 2

CRN 269718-28-7
CMF (C34 H52 N2 O4 . C9 H13 N7 . C9 H12 O3 . C8 H4 O3 . C3 H3 N3 O3 .
Unspecified . Unspecified)x
CCI PMS

CM 3

CRN 243463-73-2
CMF Unspecified
CCI PMS, MAN

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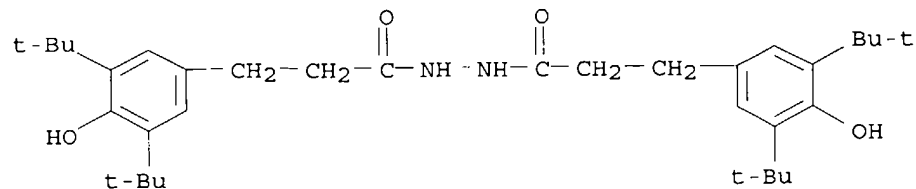
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CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

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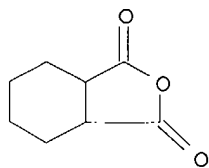
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CRN 32687-78-8
CMF C34 H52 N2 O4



CM 6

CRN 25550-51-0
CMF C9 H12 O3
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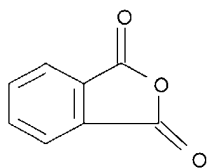


D1-- Me

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CRN 85-44-9

CMF C8 H4 O3



CM 8

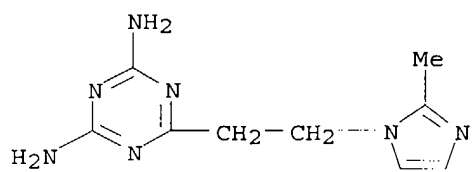
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CM 9

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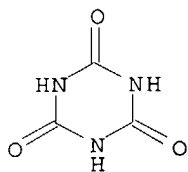
CMF C9 H13 N7



CM 10

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 3 OF 24 REGISTRY COPYRIGHT 2003 ACS
 RN 269718-28-7 REGISTRY
 CN Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione,
 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
 triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
 (1:1) (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
 polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and
 1,3-isobenzofurandione (9CI)
 CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
 compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with
 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and
 1,3-isobenzofurandione (9CI)
 CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with
 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-
 1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 CN 1,3-Isobenzofurandione, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, Epon SU 8,
 hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-
 yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 CN Epon 160, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon SU 8, hexahydromethyl-1,3-
 isobenzofurandione, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-
 1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 CN Epon SU 8, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, hexahydromethyl-1,3-
 isobenzofurandione, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-
 1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 MF (C34 H52 N2 O4 . C9 H13 N7 . C9 H12 O3 . C8 H4 O3 . C3 H3 N3 O3 .
 Unspecified . Unspecified)x
 CI PMS, COM
 PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester
 formed, Polyhydrazide, Polyether
 SR CA
 CM 1
 CRN 243463-73-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

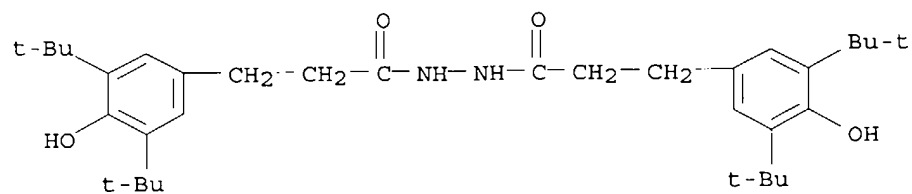
CRN 177403-04-2

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

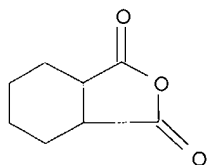
CM 3

CRN 32687-78-8
CMF C34 H52 N2 O4



CM 4

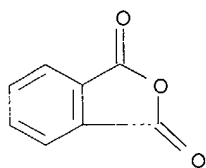
CRN 25550-51-0
CMF C9 H12 O3
CCI IDS



D1-Me

CM 5

CRN 85-44-9
CMF C8 H4 O3

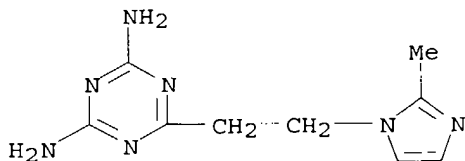


CM 6

CRN 68490-66-4
CMF C9 H13 N7 . C3 H3 N3 O3

CM 7

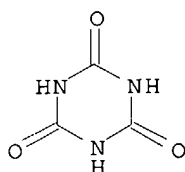
CRN 38668-46-1
CMF C9 H13 N7



CM 8

CRN 108-80-5

CMF C3 H3 N3 O3



L4 ANSWER 4 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269718-27-6 REGISTRY

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with Epon 160, Epon SU 8 and hexahydromethyl-1,3-
isobenzofurandione, 2-chlorobenzoate (ester) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon
160, Epon SU 8 and hexahydromethyl-1,3-isobenzofurandione,
2-chlorobenzoate (ester) (9CI)

CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with Epon 160, Epon
SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), 2-chlorobenzoate
(ester) (9CI)

CN Epon 160, polymer with Epon SU 8, hexahydromethyl-1,3-
isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1), 2-chlorobenzoate (ester) (9CI)

CN Epon SU 8, polymer with Epon 160, hexahydromethyl-1,3-
isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1), 2-chlorobenzoate (ester) (9CI)

MF (C9 H13 N7 . C9 H12 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x . x C7
H5 Cl O2

PCT Manual component, Manual registration, Polyamide, Polyamide formed,
Polyether

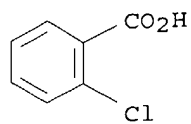
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 118-91-2

CMF C7 H5 Cl O2



CM 2

CRN 269718-24-3

CMF (C9 H13 N7 . C9 H12 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x

CCI PMS

CM 3

CRN 243463-73-2

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 177403-04-2

CMF Unspecified

CCI PMS, MAN

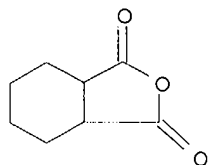
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 25550-51-0

CMF C9 H12 O3

CCI IDS



D1: Me

CM 6

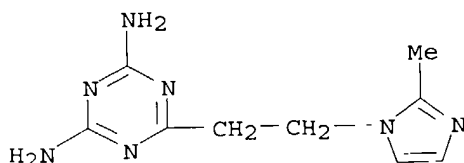
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 7

CRN 38668-46-1

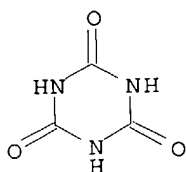
CMF C9 H13 N7



CM 8

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 5 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269718-25-4 REGISTRY

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with Epon 160, Epon SU 8 and hexahydromethyl-1,3-
isobenzofurandione, 4-methoxybenzoate (ester) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon
160, Epon SU 8 and hexahydromethyl-1,3-isobenzofurandione,
4-methoxybenzoate (ester) (9CI)

CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with Epon 160, Epon
SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), 4-methoxybenzoate
(ester) (9CI)

CN Epon 160, polymer with Epon SU 8, hexahydromethyl-1,3-
isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1), 4-methoxybenzoate (ester) (9CI)

CN Epon SU 8, polymer with Epon 160, hexahydromethyl-1,3-
isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1), 4-methoxybenzoate (ester) (9CI)

MF (C9 H13 N7 . C9 H12 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x . x C8
H8 O3

PCT Manual component, Manual registration, Polyamide, Polyamide formed,
Polyether

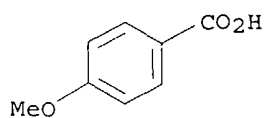
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 100-09-4

CMF C8 H8 O3



CM 2

CRN 269718-24-3

CMF (C9 H13 N7 . C9 H12 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x

CCI PMS

CM 3

CRN 243463-73-2

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 177403-04-2

CMF Unspecified

CCI PMS, MAN

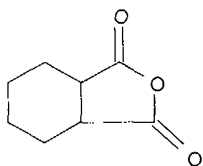
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 25550-51-0

CMF C9 H12 O3

CCI IDS



D1-Me

CM 6

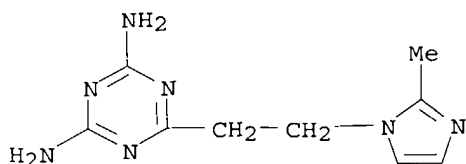
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 7

CRN 38668-46-1

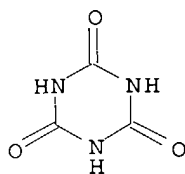
CMF C9 H13 N7



CM 8

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 6 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269718-24-3 REGISTRY

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with Epon 160, Epon SU 8 and hexahydromethyl-1,3-
isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon
160, Epon SU 8 and hexahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with Epon 160, Epon
SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

CN Epon 160, polymer with Epon SU 8, hexahydromethyl-1,3-
isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1) (9CI)

CN Epon SU 8, polymer with Epon 160, hexahydromethyl-1,3-
isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1) (9CI)

MF (C9 H13 N7 . C9 H12 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x

CI PMS, COM

PCT Manual component, Polyamide, Polyamide formed, Polyether

SR CA

CM 1

CRN 243463-73-2

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

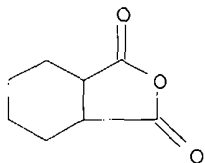
CRN 177403-04-2

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 25550-51-0
CMF C9 H12 O3
CCI IDS



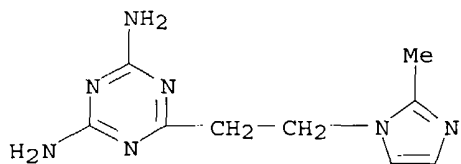
D1-Me

CM 4

CRN 68490-66-4
CMF C9 H13 N7 . C3 H3 N3 O3

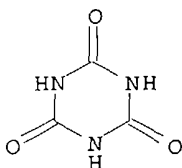
CM 5

CRN 38668-46-1
CMF C9 H13 N7



CM 6

CRN 108-80-5
CMF C3 H3 N3 O3



L4 ANSWER 7 OF 24 REGISTRY COPYRIGHT 2003 ACS
RN 269718-22-1 REGISTRY
CN **Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,**

polymer with Epon 160, Epon SU 8, 1,3-isobenzofurandione,
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
tetrahydromethyl-1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
Epon 160, Epon SU 8, 1,3-isobenzofurandione and 3a,4,7,7a-tetrahydromethyl-
1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with
3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
Epon 160, Epon SU 8, 1,3-isobenzofurandione and 3a,4,7,7a-tetrahydromethyl-
1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)

CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with
3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
Epon 160, Epon SU 8, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-
1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
2,4,6(1H,3H,5H)-trione (1:1), 2-chlorobenzoate (ester) (9CI)

CN 1,3-Isobenzofurandione, polymer with 3,5-bis(1,1-dimethylethyl)-4-
hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, Epon SU 8,
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
tetrahydromethyl-1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)

CN Epon 160, polymer with 3,5-bis(1,1-dimethylethyl)-4-
hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
hydroxyphenyl]-1-oxopropyl]hydrazide, Epon SU 8, 1,3-isobenzofurandione,
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
tetrahydromethyl-1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)

CN Epon SU 8, polymer with 3,5-bis(1,1-dimethylethyl)-4-
hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, 1,3-isobenzofurandione,
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
tetrahydromethyl-1,3-isobenzofurandione, 2-chlorobenzoate (ester) (9CI)

MF (C34 H52 N2 O4 . C9 H13 N7 . C9 H10 O3 . C8 H4 O3 . C3 H3 N3 O3 .
Unspecified . Unspecified)x . x C7 H5 Cl O2

PCT Manual component, Manual registration, Polyamide, Polyamide formed,
Polyester, Polyester formed, Polyhydrazide, Polyether

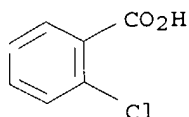
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 118-91-2

CMF C7 H5 Cl O2



CM 2

CRN 269718-21-0
CMF (C34 H52 N2 O4 . C9 H13 N7 . C9 H10 O3 . C8 H4 O3 . C3 H3 N3 O3 .
Unspecified . Unspecified)x
CCI PMS

CM 3

CRN 243463-73-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

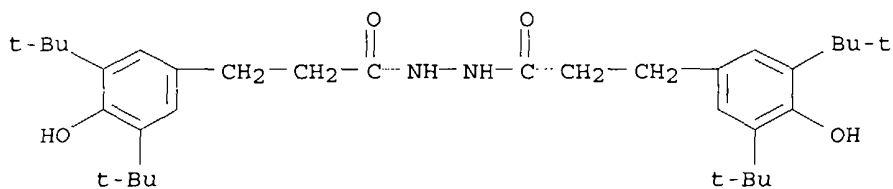
CM 4

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

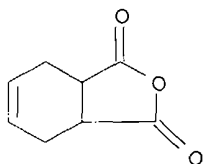
CM 5

CRN 32687-78-8
CMF C34 H52 N2 O4



CM 6

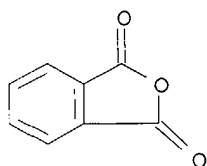
CRN 26590-20-5
CMF C9 H10 O3
CCI IDS



D1-Me

CM 7

CRN 85-44-9
CMF C8 H4 O3



CM 8

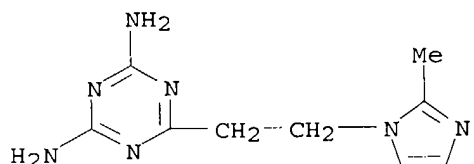
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 9

CRN 38668-46-1

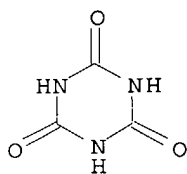
CMF C9 H13 N7



CM 10

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 8 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269718-21-0 REGISTRY

CN Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
polymer with Epon 160, Epon SU 8, 1,3-isobenzofurandione,
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
tetrahydromethyl-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
Epon 160, Epon SU 8, 1,3-isobenzofurandione and 3a,4,7,7a-tetrahydromethyl-
1,3-isobenzofurandione (9CI)
CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with

3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8, 1,3-isobenzofurandione and 3a,4,7,7a-tetrahydromethyl-
 1,3-isobenzofurandione (9CI)
 CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with
 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8, 1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-
 1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 CN 1,3-Isobenzofurandione, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, Epon SU 8,
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
 with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
 tetrahydromethyl-1,3-isobenzofurandione (9CI)
 CN Epon 160, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon SU 8, 1,3-isobenzofurandione,
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
 with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
 tetrahydromethyl-1,3-isobenzofurandione (9CI)
 CN Epon SU 8, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, 1,3-isobenzofurandione,
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
 with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
 tetrahydromethyl-1,3-isobenzofurandione (9CI)
 MF (C34 H52 N2 O4 . C9 H13 N7 . C9 H10 O3 . C8 H4 O3 . C3 H3 N3 O3 .
 Unspecified . Unspecified)x
 CI PMS, COM
 PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester
 formed, Polyhydrazide, Polyether
 SR CA

CM 1

CRN 243463-73-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

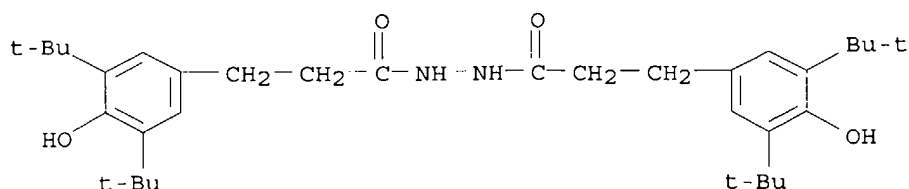
CM 2

CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 32687-78-8
 CMF C34 H52 N2 O4

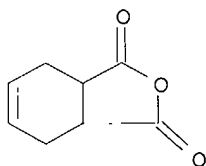


CM 4

CRN 26590-20-5

CMF C9 H10 O3

CCI IDS

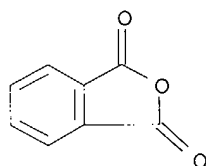


D1-- Me

CM 5

CRN 85-44-9

CMF C8 H4 O3



CM 6

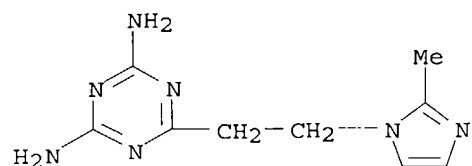
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 7

CRN 38668-46-1

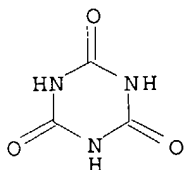
CMF C9 H13 N7



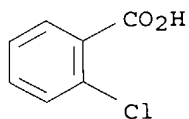
CM 8

CRN 108-80-5

CMF C3 H3 N3 O3



L4 ANSWER 9 OF 24 REGISTRY COPYRIGHT 2003 ACS
 RN 269718-18-5 REGISTRY
 CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
 polymer with Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-
 isobenzofurandione, 2-chlorobenzoate (ester) (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
 compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon
 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione,
 2-chlorobenzoate (ester) (9CI)
 CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with
 Epon 160, Epon SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
 triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
 (1:1), 2-chlorobenzoate (ester) (9CI)
 CN Epon 160, polymer with Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-
 yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-
 isobenzofurandione, 2-chlorobenzoate (ester) (9CI)
 CN Epon SU 8, polymer with Epon 160, 6-[2-(2-methyl-1H-imidazol-1-
 yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-
 isobenzofurandione, 2-chlorobenzoate (ester) (9CI)
 MF (C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x . x C7
 H5 Cl O2
 PCT Manual component, Manual registration, Polyamide, Polyamide formed,
 Polyother
 SR CA
 LC STN Files: CA, CAPLUS
 CM 1
 CRN 118-91-2
 CMF C7 H5 Cl O2



CM 2
 CRN 269718-15-2
 CMF (C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x
 CCI PMS
 CM 3
 CRN 243463-73-2
 CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

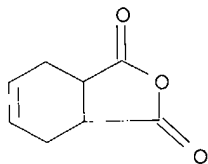
CM 4

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 26590-20-5
CMF C9 H10 O3
CCI IDS



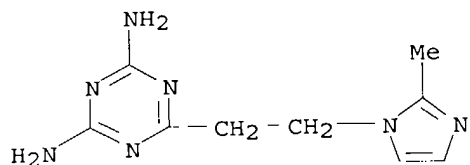
D1-Me

CM 6

CRN 68490-66-4
CMF C9 H13 N7 . C3 H3 N3 O3

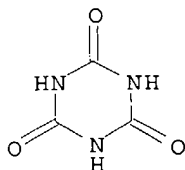
CM 7

CRN 38668-46-1
CMF C9 H13 N7



CM 8

CRN 108-80-5
CMF C3 H3 N3 O3

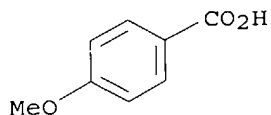


1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 10 OF 24 REGISTRY COPYRIGHT 2003 ACS
RN 269718-16-3 REGISTRY
CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-
isobenzofurandione, 4-methoxybenzoate (ester) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon
160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione,
4-methoxybenzoate (ester) (9CI)
CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with
Epon 160, Epon SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
(1:1), 4-methoxybenzoate (ester) (9CI)
CN Epon 160, polymer with Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-
yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-
isobenzofurandione, 4-methoxybenzoate (ester) (9CI)
CN Epon SU 8, polymer with Epon 160, 6-[2-(2-methyl-1H-imidazol-1-
yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-
isobenzofurandione, 4-methoxybenzoate (ester) (9CI)
MF (C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x . x C8
H8 O3
PCT Manual component, Manual registration, Polyamide, Polyamide formed,
Polyether
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 100-09-4
CMF C8 H8 O3



CM 2

CRN 269718-15-2
CMF (C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x
CCI PMS

CM 3

CRN 243463-73-2

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

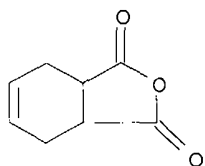
CM 4

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 26590-20-5
CMF C9 H10 O3
CCI IDS



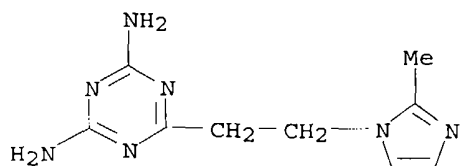
D1-Me

CM 6

CRN 68490-66-4
CMF C9 H13 N7 . C3 H3 N3 O3

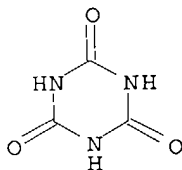
CM 7

CRN 38668-46-1
CMF C9 H13 N7



CM 8

CRN 108-80-5
CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 11 OF 24 REGISTRY COPYRIGHT 2003 ACS
 RN 269718-15-2 REGISTRY

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
 polymer with Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-
 isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
 compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon
 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione
 (9CI)

CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with
 Epon 160, Epon SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
 triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
 (1:1) (9CI)

CN Epon 160, polymer with Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-
 yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-
 isobenzofurandione (9CI)

CN Epon SU 8, polymer with Epon 160, 6-[2-(2-methyl-1H-imidazol-1-
 yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-
 isobenzofurandione (9CI)

MF (C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x

CI PMS, COM

PCT Manual component, Polyamide, Polyamide formed, Polyether

SR CA

CM 1

CRN 243463-73-2

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 177403-04-2

CMF Unspecified

CCI PMS, MAN

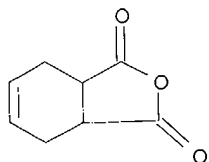
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 26590-20-5

CMF C9 H10 O3

CCI IDS



D1--Me

CM 4

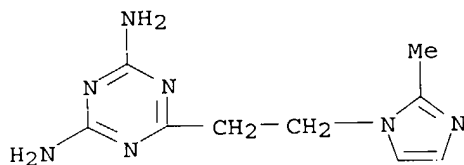
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 5

CRN 38668-46-1

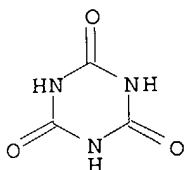
CMF C9 H13 N7



CM 6

CRN 108-80-5

CMF C3 H3 N3 O3



L4 ANSWER 12 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-87-9 REGISTRY

CN Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-,
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione
and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine
compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI) (CA
INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with
6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
Epon 160, Epon SU 8 and hexahydromethyl-1,3-isobenzofurandione (9CI)
CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,

compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with
 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8 and hexahydromethyl-1,3-isobenzofurandione (9CI)
 CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with
 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
 triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
 (1:1) (9CI)
 CN Epon 160, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon SU 8, hexahydromethyl-1,3-
 isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
 triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
 (1:1) (9CI)
 CN Epon SU 8, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, hexahydromethyl-1,3-
 isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
 triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
 (1:1) (9CI)
 MF (C34 H52 N2 O4 . C9 H12 O3 . Unspecified . Unspecified)x
 CI PMS
 PCT Manual component, Polyester, Polyester formed, Polyhydrazide, Polyether
 SR CA
 LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

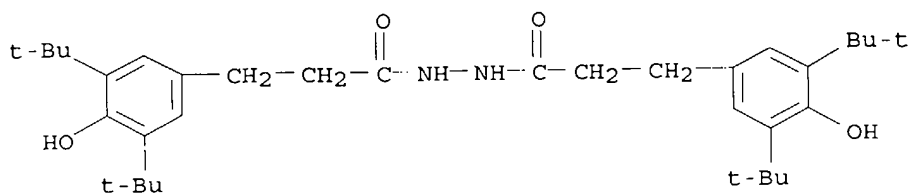
CM 2

CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

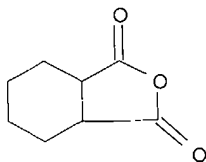
CM 3

CRN 32687-78-8
 CMF C34 H52 N2 O4



CM 4

CRN 25550-51-0
 CMF C9 H12 O3
 CCI IDS



D1-Me

1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 13 OF 24 REGISTRY COPYRIGHT 2003 ACS
RN 269410-86-8 REGISTRY

CN 2,6-Pyridinedicarboxylic acid, polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 2,6-pyridinedicarboxylic acid (9CI)
CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 2,6-pyridinedicarboxylic acid (9CI)
CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with Epon 160, Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 2,6-pyridinedicarboxylic acid (9CI)
CN Epon 160, polymer with Epon SU 8, hexahydromethyl-1,3-isobenzofurandione, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 2,6-pyridinedicarboxylic acid (9CI)
CN Epon SU 8, polymer with Epon 160, hexahydromethyl-1,3-isobenzofurandione, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 2,6-pyridinedicarboxylic acid (9CI)

MF (C9 H12 O3 . C7 H5 N O4 . Unspecified . Unspecified)x

CI PMS

PCT Manual component, Polyother, Polyother only

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

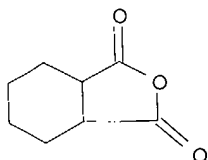
CM 2

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

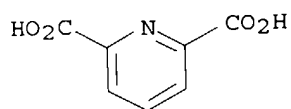
CRN 25550-51-0
CMF C9 H12 O3
CCI IDS



D1-Me

CM 4

CRN 499-83-2
CMF C7 H5 N O4



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 14 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-85-7 REGISTRY

CN 2-Naphthalenecarboxylic acid, 3,5-dihydroxy-, polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and hexahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and hexahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

CN Epon 160, polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

CN Epon SU 8, polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

MF (C11 H8 O4 . C9 H12 O3 . Unspecified . Unspecified)x

CI PMS

PCT Manual component, Polyester, Polyester formed, Polyother
SR CA
LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

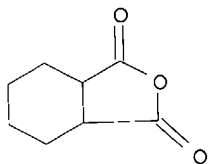
CM 2

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

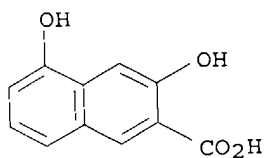
CRN 25550-51-0
CMF C9 H12 O3
CCI IDS



D1-Me

CM 4

CRN 89-35-0
CMF C11 H8 O4



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 15 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-84-6 REGISTRY

CN 2-Naphthalenecarboxylic acid, 1,4-dihydroxy-, polymer with Epon 160,
Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-
imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with
1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with

6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1),
 polymer with 1,4-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU
 8 and hexahydromethyl-1,3-isobenzofurandione (9CI)
 CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,
 compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with
 1,4-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and
 hexahydromethyl-1,3-isobenzofurandione (9CI)
 CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with
 1,4-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
 with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 CN Epon 160, polymer with 1,4-dihydroxy-2-naphthalenecarboxylic acid,
 Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-
 imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with
 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 CN Epon SU 8, polymer with 1,4-dihydroxy-2-naphthalenecarboxylic acid,
 Epon 160, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-
 imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with
 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 MF (C11 H8 O4 . C9 H13 N7 . C9 H12 O3 . C3 H3 N3 O3 . Unspecified .
 Unspecified)x
 CI PMS
 PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester
 SR CA
 LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

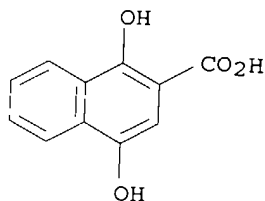
CM 2

CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

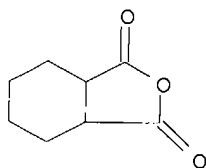
CM 3

CRN 31519-22-9
 CMF C11 H8 O4



CM 4

CRN 25550-51-0
 CMF C9 H12 O3
 CCI IDS



D1-Me

CM 5

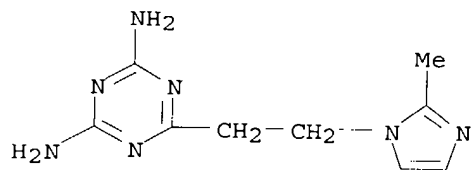
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 6

CRN 38668-46-1

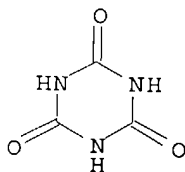
CMF C9 H13 N7



CM 7

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 16 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-83-5 REGISTRY

CN Benzoic acid, 2-hydroxy-, polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 2-hydroxybenzoic acid (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-,

compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon 160, Epon SU 8, hexahydromethyl-1,3-isobenzofurandione and 2-hydroxybenzoic acid (9CI)

CN 1,3-Isobenzofurandione, hexahydromethyl-, polymer with Epon 160, Epon SU 8, 2-hydroxybenzoic acid and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

CN Epon 160, polymer with Epon SU 8, hexahydromethyl-1,3-isobenzofurandione, 2-hydroxybenzoic acid and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

CN Epon SU 8, polymer with Epon 160, hexahydromethyl-1,3-isobenzofurandione, 2-hydroxybenzoic acid and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

MF (C9 H13 N7 . C9 H12 O3 . C7 H6 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x

CI PMS

PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester formed, Polyether

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

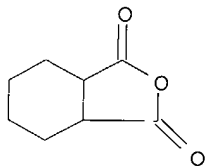
CM 2

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

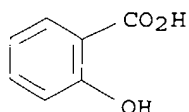
CRN 25550-51-0
CMF C9 H12 O3
CCI IDS



D1: Me

CM 4

CRN 69-72-7
CMF C7 H6 O3



CM 5

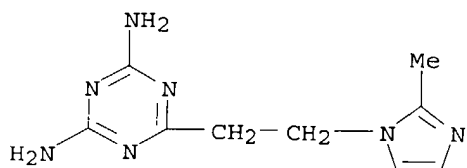
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 6

CRN 38668-46-1

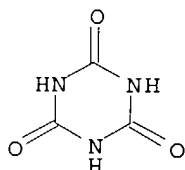
CMF C9 H13 N7



CM 7

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 17 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-82-4 REGISTRY

CN Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide, polymer with Epon 160, Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione

(9CI)
 CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with
 3,5-bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoic acid
 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]hydrazide,
 Epon 160, Epon SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-
 triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione
 (1:1) (9CI)
 CN Epon 160, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon SU 8, 6-[2-(2-methyl-1H-
 imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with
 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-
 tetrahydromethyl-1,3-isobenzofurandione (9CI)
 CN Epon SU 8, polymer with 3,5-bis(1,1-dimethylethyl)-4-
 hydroxybenzenepropanoic acid 2-[3-[3,5-bis(1,1-dimethylethyl)-4-
 hydroxyphenyl]-1-oxopropyl]hydrazide, Epon 160, 6-[2-(2-methyl-1H-imidazol-
 1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-
 2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-
 isobenzofurandione (9CI)
 MF (C34 H52 N2 O4 . C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified .
 Unspecified)x
 CI PMS
 PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester
 formed, Polyhydrazide, Polyether
 SR CA
 LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

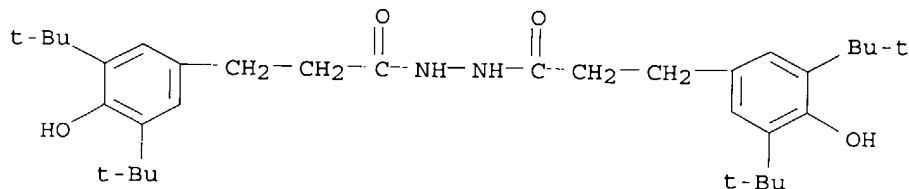
CM 2

CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

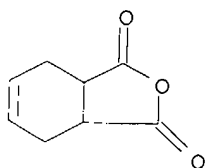
CM 3

CRN 32687-78-8
 CMF C34 H52 N2 O4



CM 4

CRN 26590-20-5
 CMF C9 H10 O3
 CCI IDS



D1--Me

CM 5

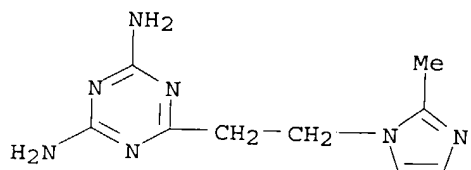
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 6

CRN 38668-46-1

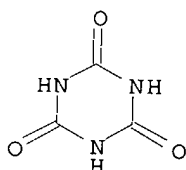
CMF C9 H13 N7



CM 7

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 18 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-81-3 REGISTRY

CN 2,6-Pyridinedicarboxylic acid, polymer with Epon 160, Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with Epon 160, Epon SU 8, 2,6-pyridinedicarboxylic acid and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon

160, Epon SU 8, 2,6-pyridinedicarboxylic acid and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with Epon 160, Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 2,6-pyridinedicarboxylic acid (9CI)

CN Epon 160, polymer with Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), 2,6-pyridinedicarboxylic acid and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN Epon SU 8, polymer with Epon 160, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), 2,6-pyridinedicarboxylic acid and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

MF (C9 H13 N7 . C9 H10 O3 . C7 H5 N O4 . C3 H3 N3 O3 . Unspecified . Unspecified)x

CI PMS

PCT Manual component, Polyamide, Polyamide formed, Polyother

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

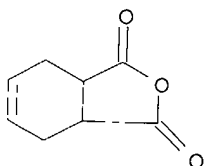
CM 2

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

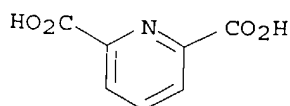
CRN 26590-20-5
CMF C9 H10 O3
CCI IDS



D1-Me

CM 4

CRN 499-83-2
CMF C7 H5 N O4



CM 5

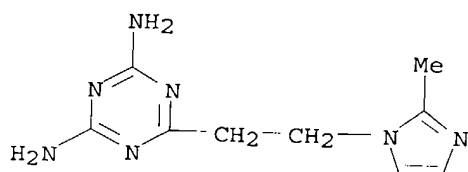
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 6

CRN 38668-46-1

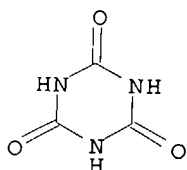
CMF C9 H13 N7



CM 7

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 19 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-80-2 REGISTRY

CN 2-Naphthalenecarboxylic acid, 3,5-dihydroxy-, polymer with Epon 160, Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.

with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)
 CN Epon 160, polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid,
 Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-
 diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and
 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)
 CN Epon SU 8, polymer with 3,5-dihydroxy-2-naphthalenecarboxylic acid,
 Epon 160, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-
 diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and
 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)
 MF (C11 H8 O4 . C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified .
 Unspecified)x
 CI PMS
 PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester
 formed, Polyether
 SR CA
 LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

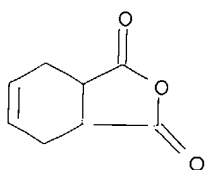
CM 2

CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

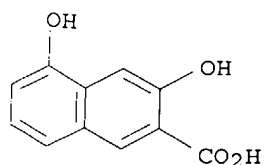
CRN 26590-20-5
 CMF C9 H10 O3
 CCI IDS



D1- Me

CM 4

CRN 89-35-0
 CMF C11 H8 O4



CM 5

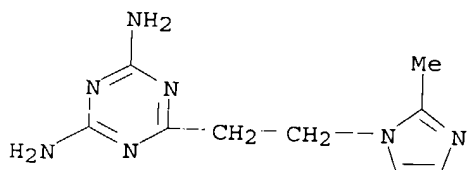
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 6

CRN 38668-46-1

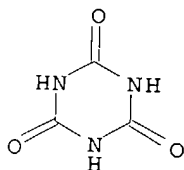
CMF C9 H13 N7



CM 7

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 20 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-79-9 REGISTRY

CN 2-Naphthalenecarboxylic acid, 1,4-dihydroxy-, polymer with Epon 160, Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with 1,4-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with 1,4-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with

1,4-dihydroxy-2-naphthalenecarboxylic acid, Epon 160, Epon SU 8 and
 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd.
 CN Epon 160, polymer with 1,4-dihydroxy-2-naphthalenecarboxylic acid,
 Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-
 diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and
 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)
 CN Epon SU 8, polymer with 1,4-dihydroxy-2-naphthalenecarboxylic acid,
 Epon 160, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-
 diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and
 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)
 MF (C11 H8 O4 . C9 H13 N7 . C9 H10 O3 . C3 H3 N3 O3 . Unspecified .
 Unspecified)x
 CI PMS
 PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester
 formed, Polyether
 SR CA
 LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

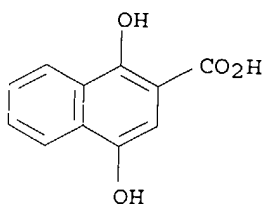
CM 2

CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

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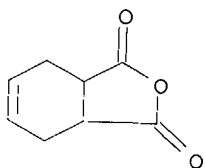
CM 3

CRN 31519-22-9
 CMF C11 H8 O4



CM 4

CRN 26590-20-5
 CMF C9 H10 O3
 CCI IDS



D1--Me

CM 5

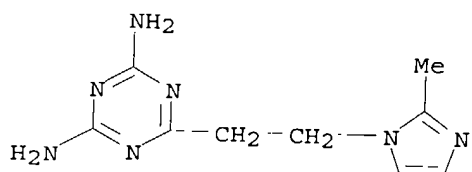
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 6

CRN 38668-46-1

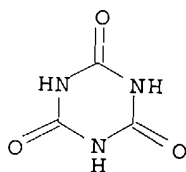
CMF C9 H13 N7



CM 7

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 21 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 269410-78-8 REGISTRY

CN Benzoic acid, 2-hydroxy-, polymer with Epon 160, Epon SU 8, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,3,5-Triazine-2,4,6(1H,3H,5H)-trione, compd. with 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine (1:1), polymer with Epon 160, Epon SU 8, 2-hydroxybenzoic acid and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3,5-Triazine-2,4-diamine, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-, compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), polymer with Epon

160, Epon SU 8, 2-hydroxybenzoic acid and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN 1,3-Isobenzofurandione, 3a,4,7,7a-tetrahydromethyl-, polymer with Epon 160, Epon SU 8, 2-hydroxybenzoic acid and 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1) (9CI)

CN Epon 160, polymer with Epon SU 8, 2-hydroxybenzoic acid, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

CN Epon SU 8, polymer with Epon 160, 2-hydroxybenzoic acid, 6-[2-(2-methyl-1H-imidazol-1-yl)ethyl]-1,3,5-triazine-2,4-diamine compd. with 1,3,5-triazine-2,4,6(1H,3H,5H)-trione (1:1), and 3a,4,7,7a-tetrahydromethyl-1,3-isobenzofurandione (9CI)

MF (C9 H13 N7 . C9 H10 O3 . C7 H6 O3 . C3 H3 N3 O3 . Unspecified . Unspecified)x

CI PMS

PCT Manual component, Polyamide, Polyamide formed, Polyester, Polyester formed, Polyether

SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 243463-73-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

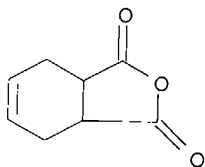
CM 2

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

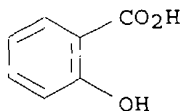
CRN 26590-20-5
CMF C9 H10 O3
CCI IDS



D1-Me

CM 4

CRN 69-72-7
CMF C7 H6 O3



CM 5

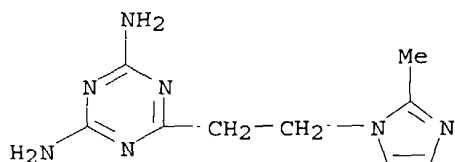
CRN 68490-66-4

CMF C9 H13 N7 . C3 H3 N3 O3

CM 6

CRN 38668-46-1

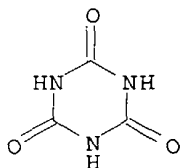
CMF C9 H13 N7



CM 7

CRN 108-80-5

CMF C3 H3 N3 O3



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 22 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 223259-40-3 REGISTRY

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol, (chloromethyl)oxirane, decanedioic acid, Epon SU 8, 4,4'-(1-methylethylidene)bis[phenol] and Vitel 5833B (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,4-Butanediol, polymer with 1,4-benzenedicarboxylic acid, (chloromethyl)oxirane, decanedioic acid, Epon SU 8, 4,4'-(1-methylethylidene)bis[phenol] and Vitel 5833B (9CI)

CN Decanedioic acid, polymer with 1,4-benzenedicarboxylic acid, 1,4-butanediol, (chloromethyl)oxirane, Epon SU 8, 4,4'-(1-methylethylidene)bis[phenol] and Vitel 5833B (9CI)

CN Epon SU 8, polymer with 1,4-benzenedicarboxylic acid, 1,4-butanediol, (chloromethyl)oxirane, decanedioic acid, 4,4'-(1-methylethylidene)bis[phenol] and Vitel 5833B (9CI)

CN Oxirane, (chloromethyl)-, polymer with 1,4-benzenedicarboxylic acid, 1,4-butanediol, decanedioic acid, Epon SU 8, 4,4'-(1-methylethylidene)bis[phenol] and Vitel 5833B (9CI)

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer with

1,4-benzenedicarboxylic acid, 1,4-butanediol, (chloromethyl)oxirane,
 decanedioic acid, Epon SU 8 and Vitel 5833B (9CI)
 CN Vitel 5833B, polymer with 1,4-benzenedicarboxylic acid,
 1,4-butanediol, (chloromethyl)oxirane, decanedioic acid, Epon SU 8 and
 4,4'-(1-methylethylidene)bis[phenol] (9CI)
 MF (C15 H16 O2 . C10 H18 O4 . C8 H6 O4 . C4 H10 O2 . C3 H5 Cl O . Unspecified
 . Unspecified)x
 CI PMS
 PCT Epoxy resin, Manual component, Polyester, Polyester formed, Polyether
 SR CA
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

CM 1

CRN 223252-04-8
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

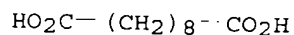
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CRN 177403-04-2
 CMF Unspecified
 CCI PMS, MAN

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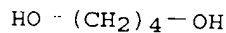
CM 3

CRN 111-20-6
 CMF C10 H18 O4



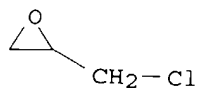
CM 4

CRN 110-63-4
 CMF C4 H10 O2



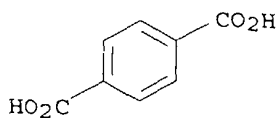
CM 5

CRN 106-89-8
 CMF C3 H5 Cl O



CM 6

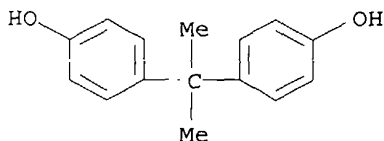
CRN 100-21-0
 CMF C8 H6 O4



CM 7

CRN 80-05-7

CMF C15 H16 O2



1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 23 OF 24 REGISTRY COPYRIGHT 2003 ACS

RN 223252-90-2 REGISTRY

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol, CA (resin), (chloromethyl)oxirane, decanedioic acid, dodecanedioic acid, Dynapol S 1313, Epon SU 8, 4,4'-(1-methylethylidene)bis[phenol] and Vitel 5833B (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,4-Butanediol, polymer contg. (9CI)

CN CA (resin), polymer contg. (9CI)

CN Decanedioic acid, polymer contg. (9CI)

CN Dodecanedioic acid, polymer contg. (9CI)

CN Dynapol S 1313, polymer contg. (9CI)

CN Epon SU 8, polymer contg. (9CI)

CN Oxirane, (chloromethyl)-, polymer contg. (9CI)

CN Phenol, 4,4'-(1-methylethylidene)bis-, polymer contg. (9CI)

CN Vitel 5833B, polymer contg. (9CI)

MF (C15 H16 O2 . C12 H22 O4 . C10 H18 O4 . C8 H6 O4 . C4 H10 O2 . C3 H5 Cl O . Unspecified . Unspecified . Unspecified . Unspecified)x

CI PMS

PCT Epoxy resin, Manual component, Polyester, Polyester formed, Polyether

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

CM 1

CRN 223252-39-9

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 223252-04-8

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 212771-60-3
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

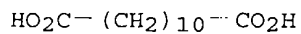
CM 4

CRN 177403-04-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

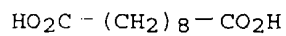
CM 5

CRN 693-23-2
CMF C12 H22 O4



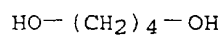
CM 6

CRN 111-20-6
CMF C10 H18 O4



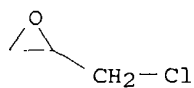
CM 7

CRN 110-63-4
CMF C4 H10 O2



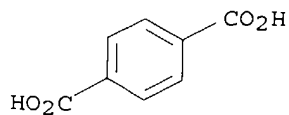
CM 8

CRN 106-89-8
CMF C3 H5 Cl O



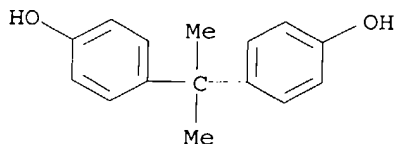
CM 9

CRN 100-21-0
CMF C8 H6 O4



CM 10

CRN 80-05-7
CMF C15 H16 O2



1 REFERENCES IN FILE CA (1962 TO DATE)
1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

L4 ANSWER 24 OF 24 REGISTRY COPYRIGHT 2003 ACS
RN 177403-04-2 REGISTRY
CN **Epon SU 8 (9CI)** (CA INDEX NAME)
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
44 REFERENCES IN FILE CA (1962 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
45 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> S TONE AND EPON
680 TONE
603 EPON
L6 0 TONE AND EPON

=> FILE CA		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	70.20	97.56
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-3.10

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FILE COVERS 1907 - 30 Jan 2003 VOL 138 ISS 6
FILE LAST UPDATED: 30 Jan 2003 (20030130/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S TONE AND EPON
23961 TONE
6016 EPON
L7 46 TONE AND EPON

=> S L7 TONE 0201 AND EPON SU 8
MISSING OPERATOR L7 TONE
The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> S TONE 0201 AND EPON SU 8
23961 TONE
1083 0201
22 TONE 0201
(TONE(W) 0201)
6016 EPON
25101 SU
2305398 8
47 EPON SU 8
(EPON(W) SU(W) 8)
L8 0 TONE 0201 AND EPON SU 8

=> D ALL L7 1-46

L7 ANSWER 1 OF 46 CA COPYRIGHT 2003 ACS
AN 137:186582 CA
TI Foaming epoxy compositions and making foams
IN Pacht, Jeffrey T.; Taylor, Donald; Freitag, James W.
PA Denovus LLC, USA
SO U.S., 13 pp., Cont.-in-part of U.S. Ser. No. 81,967.
CODEN: USXXAM
DT Patent
LA English
IC ICM C08J009-32
NCL 521054000
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 37

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6444713	B1	20020903	US 1998-197124	19981120
	US 2002058721	A1	20020516	US 1999-300930	19990428
	US 2002115737	A1	20020822	US 2000-578206	20000524
	US 6479560	B2	20021112		
PRAI	US 1997-47273P	P	19970521		
	US 1998-79205P	P	19980324		
	US 1998-81967	A2	19980520		
	US 1998-197124	A2	19981120		
	US 1999-300930	A2	19990428		
	US 1999-344198	A2	19990624		

AB Low-temp. foam compns., produced from an epoxy compd. and an acid source, can be substantially free of polyurethane or isocyanate chem. Producing a foam comprises (a) combining an A side component of a combination of

.gtoreq.1 cationic epoxy and, optionally .gtoreq.1 phenoxy resin or polyvinyl alc. with a B side component of a combination of .gtoreq.1 acid source comprising .gtoreq.1 hydrogen donating Lewis Acid and .gtoreq.1 polyol while in the presence of an encapsulated blowing agent and under conditions sufficient to permit an exothermic reaction between at least a portion of .gtoreq.1 cationic epoxy and .gtoreq.1 hydrogen donating Lewis Acid and (b) utilizing heat from the exothermic reaction to expand the combined components to form a foam. A typical foam is formed by combining a mixt. contg. Uvacure 1500 (cycloaliph. epoxy resin) 30, Microthene FP80000 (polypropylene powder) 10, Airvol 203S (polyvinyl alc.) 10% with a mixt. contg. **Tone** 0301 (polycaprolactone polyol) 29.65, Micropearls F30D (polyvinylidene chloride-encapsulated isobutane blowing agent) 14.85, and H3PO4 5.5%. Foam vertical expansion reached 487% and Shore A hardness value was 20.

ST epoxy resin low temp foaming compn; phosphoric acid epoxy foaming compn
IT Isoprene-styrene rubber
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(block, triblock; foaming epoxy compns. contg.)

IT Isoprene rubber, uses
Nitrile rubber, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(carboxy-terminated; foaming epoxy compns. contg.)

IT Blowing agents
(foaming epoxy compns. contg.)

IT Castor oil
Epoxy resins, uses
Fluoropolymers, uses
Phenoxy resins
Polyamides, uses
Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(foaming epoxy compns. contg.)

IT Sulfonic acids, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(foaming epoxy compns. contg.)

IT Plastic foams
RL: TEM (Technical or engineered material use); USES (Uses)
(foaming epoxy compns. contg. other polymer, acid source and polyol in presence of blowing agents)

IT 109190-42-3, Expancel 642WU 118549-47-6, F 30D 133976-23-5, Expancel 051DU 139202-77-0, Expancel 461DU 169313-39-7, Expancel 820DU
RL: TEM (Technical or engineered material use); USES (Uses)
(blowing agent; foaming epoxy compns. contg.)

IT 9002-84-0, Polytetrafluoroethylene 9002-88-4, Microthene FA700-00
9003-07-0, Microthene FP80000 9003-17-2, Polybutadiene 9072-62-2, DER 736 24937-78-8, Ethylene-vinyl acetate copolymer 25068-38-6, DER 331 25085-98-7, Uvacure 1500 25791-96-2, Arcol LG-650 30583-72-3, PEP 6180 54735-63-6, **Tone** 0301 68924-34-5 106392-12-5, Niox E 351 132324-95-9, AC 6702 137545-29-0, DER 317 151030-71-6, Arcol DP 1022 163294-36-8, Sarbox SB 400 163442-59-9, Airvol 203S 168679-71-8, SAT 200 216973-98-7, PKHP 200 228412-46-2, **Epon** 58005 272459-21-9, Epalloy 8240 277752-16-6, Erisys GE-60 344611-72-9, **Epon** 1510 426212-19-3, CMD 50859
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(foaming epoxy compns. contg.)

IT 77-92-9, Citric acid, uses 144-62-7, Oxalic acid, uses 7664-38-2, Phosphoric acid, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(foaming epoxy compns. contg.)

IT 9002-85-1, Poly(vinylidene chloride)
RL: POF (Polymer in formulation); TEM (Technical or engineered material

use); USES (Uses)
 (isobutane encapsulated; foaming epoxy compns. contg.)
 IT 9003-31-0
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (isoprene rubber, carboxy-terminated; foaming epoxy compns. contg.)
 IT 105729-79-1
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (isoprene-styrene rubber, block, triblock; foaming epoxy compns. contg.)
 IT 9003-18-3
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (nitrile rubber, carboxy-terminated; foaming epoxy compns. contg.)

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

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- (2) Anon; EP 0012593 1979 CA
- (3) Anon; EP 0849302 A1 1998 CA
- (4) Breitling; US 4269890 A 1981
- (5) Carey; US 3154504 A 1964
- (6) Dubois; US 4390333 A 1983
- (7) Gergen; US 2825282 A 1958
- (8) Johnson; US 3028344 A 1962 CA
- (9) Kagoshima; US 5274006 A 1993 CA
- (10) Kawakami; US 3618442 A 1971
- (11) Landers; US 5254074 A 1993
- (12) Landers; US 5339602 A 1994
- (13) Lee; Handbook of Epoxy Resins 1993, P11
- (14) Oldham; US 4568603 A 1986 CA
- (15) Roth; US 4232788 A 1980
- (16) Wishneski; US 5183583 A 1993 CA
- (17) Wycech; US 4923902 A 1990 CA

L7 ANSWER 2 OF 46 CA COPYRIGHT 2003 ACS

AN 137:170399 CA

TI Foaming compositions based on epoxy resins and methods for making and using the compositions

IN Freitag, James W.; Taylor, Donald W.; Rogers, Jess; Pachl, Jeffrey T.
 PA USA

SO U.S. Pat. Appl. Publ., 38 pp., Cont.-in-part of U.S. Ser. No. 344,198.
 CODEN: USXXCO

DT Patent

LA English

IC ICM C08L063-00

NCL 521135000

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002115737	A1	20020822	US 2000-578206	20000524
	US 6479560	B2	20021112		
	US 6444713	B1	20020903	US 1998-197124	19981120
	US 2002058721	A1	20020516	US 1999-300930	19990428
PRAI	US 1997-47273P	P	19970521		
	US 1998-79205P	P	19980324		
	US 1998-81967	B2	19980520		
	US 1998-197124	A2	19981120		
	US 1999-300930	A2	19990428		
	US 1999-344198	A2	19990624		

AB Foams are formed at low temps. by combining .gtoreq.1 epoxy compd. with .gtoreq.1 acid source and .gtoreq.1 blowing agent under such conditions to provide an exothermic reaction, wherein .gtoreq.1 of the precursors is encapsulated, and utilizing the heat from the exothermic reaction to

expand the mixts. A typical foam is formed by combining a mixt. contg. Uvacure 1500 (cycloaliph. epoxy resin) 30, Microthene FP80000 (polypropylene powder) 10, Airvol 203S (polyvinyl alc.) 10% with a mixt. contg. **Tone** 0301 (polycaprolactone polyol) 29.65, Micropearls F30D (polyvinylidene chloride-encapsulated isobutane blowing agent) 14.85, and H3PO4 5.5%.

ST epoxy resin low temp foaming compn; phosphoric acid epoxy foaming compn; polyvinylidene chloride encapsulated isobutane blowing agent epoxy foaming compn; encapsulated precursor epoxy foaming compn; polycaprolactone polyol epoxy foaming compn; polypropylene epoxy foaming compn; cycloaliph epoxy foaming compn; acid source low temp epoxy foaming compn

IT Epoxy resins, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (brominated; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT Blowing agents
 (encapsulated; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT Hydrocarbons, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (fluoro, blowing agents; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT Epoxy resins, properties
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
 (low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT Plastic foams
 RL: PRP (Properties)
 (low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT 7664-38-2, Phosphoric acid, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (HQ 54, Amberphos 54; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT 74-98-6, Propane, uses 78-78-4, Isopentane 106-97-8, Butane, uses 109-66-0, Pentane, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (blowing agents; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT 109190-42-3, Expancel 642WU 118549-47-6, F 30D 133976-23-5, Expancel 051DU 139202-77-0, Expancel 461DU 139202-78-1, Expancel 551WU 169313-39-7, Expancel 820DU
 RL: MOA (Modifier or additive use); USES (Uses)
 (encapsulated blowing agent; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT 25214-39-5, Acrylonitrile-methyl methacrylate-vinylidene chloride copolymer 30396-85-1, Acrylonitrile-methyl methacrylate copolymer
 RL: MOA (Modifier or additive use); USES (Uses)
 (isobutane encapsulated by, blowing agent; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT 9002-85-1, Polyvinylidene chloride
 RL: NUU (Other use, unclassified); USES (Uses)
 (isobutane encapsulated by, blowing agent; low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT 9003-27-4D, Polyisobutene, epoxidized
 RL: MOA (Modifier or additive use); USES (Uses)
 (low-temp. foaming compns. based on epoxy resins and contg. encapsulated components and acid source)

IT 9072-62-2, DER 736 25068-38-6, **Epon** 828 25085-98-7, Uvacure 1500 30583-72-3, PEP 6180 68924-34-5 80209-31-0, **Epon** 813 137545-29-0, DER317 147625-58-9, Actipol E-16 203340-82-3, **Epon** SU2.5 216974-17-3, Uvacure 1534 228412-46-2, **Epon** 58005 272459-21-9, Epalloy 8240 426212-19-3, CMD 50859 448907-96-8,

NPEK 119 448920-43-2, PEP 6264 448920-44-3, PEP 6137 448920-45-4,
PEP 6138 448920-46-5, PEP 6139 448920-47-6, PEP 6210PA 448920-81-8,
PEP 6433 448922-26-7, PEP 6431 448922-32-5, Erisys GE 29

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(low-temp. foaming compns. based on epoxy resins and contg.
encapsulated components and acid source)

IT 26761-45-5, Cardura E-10

RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)
(low-temp. foaming compns. based on epoxy resins and contg.
encapsulated components and acid source)

IT 75-28-5, Isobutane

RL: NUU (Other use, unclassified); USES (Uses)
(polyvinylidene chloride-encapsulated, blowing agent; low-temp. foaming
compns. based on epoxy resins and contg. encapsulated components and
acid source)

L7 ANSWER 3 OF 46 CA COPYRIGHT 2003 ACS

AN 136:387090 CA

TI Epoxy foam compositions and methods for making and using the composition
IN Pachl, Jeffrey T.; Taylor, Donald W.; Freitag, James W.
PA USA

SO U.S. Pat. Appl. Publ., 28 pp., Cont.-in-part of U. S. Ser. No. 197,124.
CODEN: USXXCO

DT Patent

LA English

IC ICM C08J009-00

NCL 521135000

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002058721	A1	20020516	US 1999-300930	19990428
	US 6444713	B1	20020903	US 1998-197124	19981120
	US 2002115737	A1	20020822	US 2000-578206	20000524
	US 6479560	B2	20021112		
PRAI	US 1997-47273P	P	19970521		
	US 1998-79205P	P	19980324		
	US 1998-81967	B2	19980520		
	US 1998-197124	A2	19981120		
	US 1999-300930	A2	19990428		
	US 1999-344198	A2	19990624		

AB A method for producing a foam comprises: (a) combining at least one epoxy
component (e.g., Epon 828) with at least one acid source
component (e.g., H3PO4) and at least one encapsulated blowing agent under
conditions sufficient to provide an exothermic reaction; and (b) utilizing
heat from the exothermic reaction so as to expand the combined components
to form a foam. The disclosed compns. and precursors thereof reduce, if
not eliminate, the presence of conventional undesirable compds. and
byproducts thereof.

ST epoxy foam microencapsulated blowing agent

IT Blowing agents

(encapsulated; epoxy foam compns. and methods for making and using the
compn.)

IT Epoxy resins, uses

Polyamides, uses

Polyesters, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or
engineered material use); USES (Uses)

(epoxy foam compns. and methods for making and using the compn.)

IT Plastic foams

RL: PRP (Properties); TEM (Technical or engineered material use); USES
(Uses)

(epoxy foam compns. and methods for making and using the compn.)

IT 502-44-3, Caprolactone

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (Tone Monomer EC; epoxy foam compns. and methods for making and using the compn.)

IT 106-97-8, Butane, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (blowing agent, encapsulated; epoxy foam compns. and methods for making and using the compn.)

IT 118549-47-6, Microsphere F 30D
 RL: NUU (Other use, unclassified); USES (Uses)
 (epoxy foam compns. and methods for making and using the compn.)

IT 9002-88-4, Polyethylene 9003-07-0, Equistar FP 800-00 9003-17-2, Polybutadiene 24937-78-8, Ethylene-vinyl acetate copolymer 25068-38-6, Epon 828 25085-98-7, UVACure 1500 42423-25-6, Bisphenol F-epichlorohydrin copolymer 54735-63-6, Tone 0301 80209-31-0, Epon 813 105729-79-1, Isoprene-styrene block copolymer 106107-54-4, Butadiene-styrene block copolymer 163442-59-9, Airvol 203S 426212-19-3, CMD 50859
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (epoxy foam compns. and methods for making and using the compn.)

IT 7664-38-2, Phosphoric acid, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (epoxy foam compns. and methods for making and using the compn.)

L7 ANSWER 4 OF 46 CA COPYRIGHT 2003 ACS
 AN 136:93374 CA
 TI Reduction of internal stress in a SU-8-like negative tone photoresist for MEMS applications by chemical modification
 AU Ruhmann, Ralf; Ahrens, Gisela; Schuetz, Antje; Voskuhl, Jeanine; Gruetzner, Gabi
 CS Micro Resist Technology GmbH, Berlin, Germany
 SO Proceedings of SPIE-The International Society for Optical Engineering (2001), 4345(Pt. 1, Advances in Resist Technology and Processing XVIII), 502-510
 CODEN: PSISDG; ISSN: 0277-786X
 PB SPIE-The International Society for Optical Engineering
 DT Journal
 LA English
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

AB The occurrence of internal stress of ultra-thick photoresists, like SU-8 is a known problem in lithog. processes. The authors studied chem. modified SU-8-like photoresists to extend the processing latitude by reducing the internal stress of the resist images. Firstly, the compn. of the polymeric binder and secondly that of the photoacid generator (PAG) was changed. The influence of these 2 variations on the stress behavior, the process conditions and the lithog. performance was studied in resist layers of 250.mu.m and of 65-140 .mu.m thickness, resp. The chem. modification resulted in a drastic redn. of the internal stress occurring during the post exposure bake and by an addnl. hardbake. In comparison to SU-8, stress values of the modified resists reduced by 70% were achieved. With optimized process conditions for each test resist the improvement of stress behavior was linked with a lithog. performance yielding high-quality patterns with high resoln. and a good aspect ratio.

ST stress SU8 neg tone photoresist MEMS
 IT Lithography
 (i-line UV; redn. of internal stress in a SU-8-like neg. tone photoresist for MEMS applications by chem. modification)

IT Photoresists
 (redn. of internal stress in a SU-8-like neg. tone photoresist for MEMS applications by chem. modification)

IT Epoxy resins, processes
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(redn. of internal stress in a SU-8-like neg. **tone**
photoresist for MEMS applications by chem. modification)

IT Stress, mechanical
(residual; redn. of internal stress in a SU-8-like neg. **tone**
photoresist for MEMS applications by chem. modification)

IT 177403-04-2, **EPON** SU-8 221273-01-4, SU 8
RL: PEP (Physical, engineering or chemical process); TEM (Technical or
engineered material use); PROC (Process); USES (Uses)
(redn. of internal stress in a SU-8-like neg. **tone**
photoresist for MEMS applications by chem. modification)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (2) Flack, W; SPIE 1999, V3678, P474 CA
- (3) Glang, R; Review of Scientific Instruments 1965, V36, P7
- (4) Ling, Z; SPIE 2000, V3999, P1019
- (5) Lorenz, H; J Micromech Microeng 1997, V7, P121 CA
- (6) Lorenz, H; Microelectronic Engineering 1998, V41/42, P371 CA
- (7) Lorenz, H; Proc of Micro Mechanics Europe'96 1996, P32
- (8) Lorenz, H; Sensors & Actuators 1998, VA64, P33 CA
- (9) Shaw, J; IBM Journal of Research and Development 1997, V41, P81 CA

L7 ANSWER 5 OF 46 CA COPYRIGHT 2003 ACS

AN 134:57437 CA

TI Toughening of epoxy/polycaprolactone composites via reaction induced phase
separation

AU Siddhamalli, Sridhar K.

CS Fitel Lucent Technologies, Carrollton, GA, 30117, USA

SO Polymer Composites (2000), 21(5), 846-855
CODEN: PCOMDI; ISSN: 0272-8397

PB Society of Plastics Engineers

DT Journal

LA English

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38

AB A series of melt processable thermoset/thermoplastic blends were prepd. by
mixing bisphenol-A diglycidyl ether (**Epon-828**)/diaminodiphenyl
sulfone (DGEBA/DDS) system with two grades of polycaprolactone resin.
Phase sepn. behavior of the blends was investigated by means of optical
microscopy, microstructure by SEM, and thermo-mech. properties. The
toughness of polycaprolactone modified epoxies was measured by
instrumented falling wt. impact (IFWI) testing. Various blend
morphologies were obsd. depending upon the cured epoxy
network/thermoplastic compn. Spinodal decompn. as characterized by
modulated structure of unique periodicity and phase connectivity was found
to be the probable mechanism of phase sepn. SEM examn. of fracture
surfaces indicated a strong adhesion between the epoxy-rich and
polycaprolactone-rich phases. Optimum improvement in failure energy was
obtained for the compns. contg. 10-20% polycaprolactone without
significantly compromising the elastic modulus and the thermo-mech.
stability of the epoxy. In light of morphol. evidences, a possible
toughening effect was postulated in terms of tearing of the thermoplastic
component and induced plastic deformation of the epoxy matrix.

ST toughening epoxy resin polycaprolactone composite; reaction induced phase
sepn composite toughening

IT Hardness (mechanical)
(Shore; toughening of epoxy/polycaprolactone composites via reaction
induced phase sepn.)

IT Polymer morphology
(fracture-surface; toughening of epoxy/polycaprolactone composites via
reaction induced phase sepn.)

IT Polyesters, properties
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)
(lactone-based; toughening of epoxy/polycaprolactone composites via

reaction induced phase sepn.)

IT Fracture surface morphology
(polymeric; toughening of epoxy/polycaprolactone composites via reaction induced phase sepn.)

IT Elongation, mechanical
(tensile; toughening of epoxy/polycaprolactone composites via reaction induced phase sepn.)

IT Bending strength
Impact strength
Phase separation
Plastic deformation
Spinodal decomposition
Tensile strength
Young's modulus
(toughening of epoxy/polycaprolactone composites via reaction induced phase sepn.)

IT Epoxy resins, properties
Polymer blends
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(toughening of epoxy/polycaprolactone composites via reaction induced phase sepn.)

IT 24980-41-4D, Polycaprolactone, polyol derivs. 25248-42-4D, Polycaprolactone, polyol derivs. 71745-12-5, DDS-**Epon** 828 copolymer 138265-05-1, **Tone** P 767 313360-47-3, **Tone** 1270
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(toughening of epoxy/polycaprolactone composites via reaction induced phase sepn.)

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; Advances in Chemistry Series 1989, V233
- (2) Anon; Epoxy Resin Chemistry and Technology 1988
- (3) Bhatnagar, M; Polym-Plast Technol Eng 1993, V32(1 & 2), P53
- (4) Bucknall, C; Polymer 1983, V24, P639 CA
- (5) Cecere, J; 31st Int SAMPE Symp 1986, P580 CA
- (6) Clark, J; J Appl Polym Sci 1984, V9, P3381
- (7) Gannon, J; High Performance Polymers: Their Origin and Development 1986
- (8) Girard-Reydet, E; to be published in Polymer
- (9) Hedrick, J; Polymer 1991, V32, P2020 CA
- (10) Hourston, D; Polymer International 1991, V26, P17 CA
- (11) Kyu, T; Physical Review Letters 1996, V76(20), P3746 CA
- (12) Kyu, T; Polymer Solutions, Blends, and Interfaces 1992, P245 CA
- (13) Ma, C; 31st Int SAMPE Symp 1986, P420 CA
- (14) Park, J; Polymers for Advanced Technologies 1995, V7, P209
- (15) Shih, W; Journal of Reinforced Plastics and Composites 1989, V8, P270 CA
- (16) Sue, H; 7th International ECM Conference, Additives '98 1998
- (17) Williams, R; Advances in Polymer Science 1997, V128, P95 CA
- (18) Yamanaka, K; Polymer 1989, V30, P662 CA
- (19) Yee, A; J Mater Sci 1986, V21, P2462 CA

L7 ANSWER 6 OF 46 CA COPYRIGHT 2003 ACS

AN 133:216532 CA

TI Fabrication of semiconductor component with external contact polymer support

IN Farnworth, Warren M.; Wood, Alan G.

PA Micron Technology, Inc., USA

SO U.S., 13 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM H01L021-44

ICS H01L021-48; H01L021-50

NCL 257734000

CC 76-3 (Electric Phenomena)
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6118179	A	20000912	US 1999-384783	19990827
	US 6180504	B1	20010130	US 1999-440380	19991115
PRAI	US 1999-384783	A3	19990827		
AB	A semiconductor component includes a substrate, bonding pads on the substrate, and external contacts bonded to the bonding pads. Exemplary external contacts include solder balls, solder bumps, solder columns, TAB bumps and stud bumps. Preferably the external contacts are arranged in a dense array, such as a ball grid array (BGA), or fine ball grid array (FBGA). The component also includes a polymer support member configured to strengthen the external contacts, absorb forces applied to the external contacts, and prevent sepn. of the external contacts from the bonding pads. In a first embodiment, the polymer support member comprises a cured polymer layer on the substrate, which encompasses the base portions of the external contacts. In a second embodiment, the polymer support member comprises support rings which encompass the base portions of the external contacts. In either embodiment the polymer support member transfers forces applied to the external contacts away from the interface with the bonding pads, and into the center of the contacts.				
ST	manuf semiconductor component external contact polymer support; dense ball grid array solder bonding external elec contact				
IT	Photomasks (lithographic masks) (UV; in fabrication of semiconductor component with external contact polymer support)				
IT	Coating process (electroless; in fabrication of semiconductor component with external contact polymer support)				
IT	Polyimides, processes Polysiloxanes, processes RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (external contact support; in fabrication of semiconductor component with external contact polymer support)				
IT	Polymers, processes RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (external contact; fabrication of semiconductor component with external contact polymer support)				
IT	Electric contacts (external; fabrication of semiconductor component with)				
IT	Semiconductor device fabrication (fabrication of semiconductor component with external contact polymer support)				
IT	Printed circuit boards (fabrication of semiconductor component with external contact polymer support in)				
IT	Bump contacts Electrodeposition Electronic packages Negative photoresists Soldering (in fabrication of semiconductor component with external contact polymer support)				
IT	Epoxy resins, processes RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses) (neg. tone resist; in fabrication of semiconductor component with external contact polymer support)				
IT	Heat treatment (of resist material; in fabrication of semiconductor component with external contact polymer support)				

IT Electronic packaging process
 (of semiconductor component with external contact polymer support)

IT Crosslinking
 (polymer layer; in fabrication of semiconductor component with external
 contact polymer support)

IT Resists
 (thick film; in fabrication of semiconductor component with external
 contact polymer support)

IT Semiconductor materials
 (wafers; in fabrication of semiconductor component with external
 contact polymer support)

IT 7429-90-5, Aluminum, processes
 RL: DEV (Device component use); PEP (Physical, engineering or chemical
 process); PROC (Process); USES (Uses)
 (bond pads; in fabrication of semiconductor component with external
 contact polymer support)

IT 7440-57-5, Gold, processes
 RL: DEV (Device component use); PEP (Physical, engineering or chemical
 process); PROC (Process); USES (Uses)
 (flash film; in fabrication of semiconductor component with external
 contact polymer support)

IT 177403-04-2, **Epon** SU-8
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical
 process); PROC (Process); USES (Uses)
 (in fabrication of semiconductor component with external contact
 polymer support)

IT 84540-57-8, Propyleneglycol-monomethyletheracetate
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical
 process); PROC (Process); USES (Uses)
 (resist developer; in fabrication of semiconductor component with
 external contact polymer support)

IT 7440-50-8, Copper, processes
 RL: DEV (Device component use); PEP (Physical, engineering or chemical
 process); PROC (Process); USES (Uses)
 (solderable film; in fabrication of semiconductor component with
 external contact polymer support)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Akram; US 5674785 1997
- (2) Akram; US 5739585 1998
- (3) Akram; US 5811879 1998
- (4) Akram; US 5834945 1998
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- (10) Lau, J; Ball Grid Array Technology
- (11) Tummala, R; Microelectronics Packaging Handbook 1989, P366
- (12) Yamashita; US 5763939 1998

L7 ANSWER 7 OF 46 CA COPYRIGHT 2003 ACS

AN 131:345268 CA

TI Electrically conductive coating as antistatic layers for floors

IN Corner, William A.

PA Garland Floor Co., USA

SO U.S., 9 pp., Cont. of U.S. Ser. No. 342,768, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM H01B001-02

ICS B32B005-16; C09D001-00

NCL 252513000

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38, 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5989460	A	19991123	US 1997-819022	19970317
PRAI	US 1994-342768		19941121		
AB	An elec. conductive floor coating comprising a ferroalloy contg. layer including particles of ferroalloy interspersed with a resinous binder.				
ST	antistatic conductive coating ferroalloy resin binder floor				
IT	Carbon black, uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (Shawinigan Black C 55; elec. conductive coating as antistatic layers for floors)				
IT	Coating materials (antistatic; elec. conductive coating as antistatic layers for floors)				
IT	Binders Floors (elec. conductive coating as antistatic layers for floors)				
IT	Ferroalloys Glass beads RL: TEM (Technical or engineered material use); USES (Uses) (elec. conductive coating as antistatic layers for floors)				
IT	Coating materials (elec. conductive; elec. conductive coating as antistatic layers for floors)				
IT	25068-38-6 RL: TEM (Technical or engineered material use); USES (Uses) (Araldite 6010, Epon 1001; elec. conductive coating as antistatic layers for floors)				
IT	8049-17-0, Ferrosilicon RL: TEM (Technical or engineered material use); USES (Uses) (Duramet 200 and 275D; elec. conductive coating as antistatic layers for floors)				
IT	7782-42-5, Graphite, uses RL: TEM (Technical or engineered material use); USES (Uses) (PC 38; elec. conductive coating as antistatic layers for floors)				
IT	7631-86-9, Silica, uses RL: TEM (Technical or engineered material use); USES (Uses) (Snow Tex 45; elec. conductive coating as antistatic layers for floors)				
IT	98-00-0, Furfuryl alcohol 1330-20-7, Xylene, uses 12673-86-8, Antimony tin oxide 25154-52-3, Nonylphenol 39390-62-0, Epoxide 8 54735-63-6, Tone 301 69346-09-4, Anti-Terra-U 84540-57-8, PM acetate 114356-11-5, Desmophen 651A-65 214208-72-7, Byk 032 250215-45-3, Ancamine 2368 RL: TEM (Technical or engineered material use); USES (Uses) (elec. conductive coating as antistatic layers for floors)				

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD

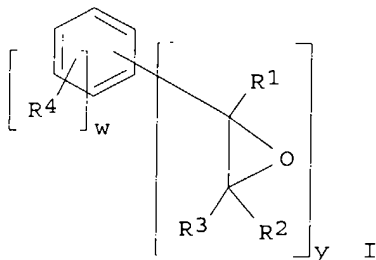
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 (31) Wiley; US 4818437 1989 CA
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L7 ANSWER 8 OF 46 CA COPYRIGHT 2003 ACS
 AN 131:273216 CA
 TI Reactive radiation- or thermally-initiated cationically-curable epoxide monomers and compositions made from those monomers
 IN Nikolic, Nikola A.; Schultz, Rose Ann
 PA USA
 SO U.S., 11 pp., Cont.-in-part of U.S. Ser. No. 857,667, abandoned.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C08F002-46
 NCL 522170000
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5962547	A	19991005	US 1998-78768	19980514
	AU 9862832	A1	19981119	AU 1998-62832	19980421
	AU 711786	B2	19991021		
	TW 416965	B	20010101	TW 1998-87107356	19980512
	CA 2237533	AA	19981116	CA 1998-2237533	19980513
	CA 2237881	AA	19981116	CA 1998-2237881	19980515
	EP 878472	A1	19981118	EP 1998-108862	19980515
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	AU 9865995	A1	19981119	AU 1998-65995	19980515
	AU 700835	B2	19990114		
	JP 11071364	A2	19990316	JP 1998-133578	19980515
	JP 3026557	B2	20000327		
PRAI	US 1997-857667	B2	19970516		
	US 1998-78768	A	19980514		
OS	MARPAT 131:273216				
GI					



AB A cationically-curable adhesive or coating compn. comprises (a) a radiation- or thermally-initiated cationically-curable compd. I in which R1 to R4 independently represent hydrogen, or aliph., alicyclic or arom. groups, which may contain heteroatoms, characterized in that they do not hinder the cationic polymn. of the epoxy functionality either through steric interaction or through the action of a Lewis base; y is an integer 1-6, w is an integer 0-5, provided that $y+w \leq 6$; and (b) a cationic photochem. or thermal initiator; and (c) one or more alcs. or polyols. A monomer was prepd. by epoxidn. of 1,3-diisopropenylbenzene.

ST cationic curing epoxide compn; adhesive coating cationic curable

IT Adhesives
Coating materials
(cationically-curable; reactive radiation- or thermally-initiated cationically-curable epoxide monomers and compns. made from those monomers)

IT Epoxy resins, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reactive radiation- or thermally-initiated cationically-curable epoxide monomers and compns. made from those monomers)

IT 4436-22-0P 17096-86-5P 30424-08-9P 40626-39-9P 54514-38-4P 125303-57-3P 216164-46-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reactive radiation- or thermally-initiated cationically-curable epoxide monomers and compns. made from those monomers)

IT 93-16-3, Isoeugenol methyl ether 93-29-8, Isoeugenol acetate 103-54-8, Cinnamyl acetate 637-50-3, .beta.-Methyl styrene 1321-74-0, Divinyl-benzene, reactions 3748-13-8, 1,3-Diisopropenylbenzene 16277-67-1, Cinnamyl methyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactive radiation- or thermally-initiated cationically-curable epoxide monomers and compns. made from those monomers)

IT 2163-42-0 25068-38-6, **Epon 828** 50327-24-7, **Tone** 0201 181494-00-8, Rucoflex S 107-210 199877-17-3, StepanPol PS 4002 216303-42-3, Syn Fac 8031
RL: TEM (Technical or engineered material use); USES (Uses)
(reactive radiation- or thermally-initiated cationically-curable epoxide monomers and compns. made from those monomers)

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD

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- (30) Muller; US 4764581 1988 CA
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L7 ANSWER 9 OF 46 CA COPYRIGHT 2003 ACS

AN 131:136806 CA

TI Positive-**tone** photoimaging crosslinkable coating

IN Hawkins, Robert E.; Briguglio, James J.

PA Morton International, Inc., USA

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM G03F007-022

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 76

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	EP 933681	A1	19990804	EP 1998-306178	19980803
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 11231520	A2	19990827	JP 1998-230764	19980817
PRAI	US 1998-16003		19980130		
	US 1998-113267		19980710		

AB The present invention is directed to a pos.-**tone** photoimaging dielec. compn. that forms a permanent inner layer of a multilayer printed circuit board, and to a method for forming such a board. It is also directed to a novel method for manufg. multilayer printed circuit boards by the selective plating of the dielec. layers, eliminating the need for the std. copper foil inner layers, and the photodefinition of vias, thus eliminating the need for drilled holes in most instances. The invention is also directed to the use of the photoimaging dielec. compn. as a solder mask. The imaged portion of a pos.-**tone** photoimaging dielec. coating compn. comprising a combination of a novolak resin and a naphthoquinonediazide is sol. in an aq. alk. developer and the developed coating is rendered highly stable, chem. and thermally, by the presence therein of a crosslinkable resin and dicyandiamide or a thermally labile halogen-contg. compd. as a curing catalyst while heating the coating to cure it.

ST pos **tone** photoimaging crosslinkable coating; cresol novolak dicyandiamide photoresist dielec coating

IT Aminoplasts

RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (Beetle 65, Beetle 80; pos.-**tone** photoimaging crosslinkable coating compn. for dielec. pattern formation contg.)

IT Aminoplasts

RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Cymel; pos.-**tone** photoimaging crosslinkable coating compn. for dielec. pattern formation contg.)

IT Silica gel, uses
RL: MOA (Modifier or additive use); USES (Uses)
(Syloid 7000; as filler in photoimaging crosslinkable coating compn. for dielec. pattern formation)

IT Electric insulators
(coatings; pos.-**tone** photoimaging crosslinkable coating compn. for prepn. of)

IT Photoimaging materials
(crosslinkable coating compns. for pos.-**tone**)

IT Crosslinking catalysts
(dicyandiamide; for pos.-**tone** photoimaging crosslinkable coating compns. for prepn. of dielec. coatings)

IT Crosslinking agents
(for pos.-**tone** photoimaging crosslinkable coating compns. for prepn. of dielec. coatings)

IT Butadiene rubber, preparation
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(hydroxy-terminated, epoxidized, Poly bd 605; pos.-**tone** photoimaging crosslinkable coating compn. for dielec. pattern formation contg.)

IT Positive photoresists
(in use with pos.-**tone** photoimaging crosslinkable coating compns. in fabrication of printed circuit boards)

IT Soldering
(masks; pos.-**tone** photoimaging crosslinkable coating compns. for forming dielec. coatings in prepn. of)

IT Phenolic resins, preparation
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(novolak, cresol-based; pos.-**tone** photoimaging crosslinkable coating compn. contg.)

IT Epoxy resins, preparation
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(pos.-**tone** photoimaging crosslinkable coating compn. contg.)

IT Printed circuit boards
(pos.-**tone** photoimaging crosslinkable coating compns. for forming dielec. coatings in prepn. of multilayer)

IT 9011-05-6P
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Beetle 65, Beetle 80; pos.-**tone** photoimaging crosslinkable coating compn. for dielec. pattern formation contg.)

IT 9003-08-1P
RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Cymel; pos.-**tone** photoimaging crosslinkable coating compn. for dielec. pattern formation contg.)

IT 461-58-5, Dicyandiamide
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(as curing catalyst for pos.-**tone** photoimaging crosslinkable coating compn. for dielec. pattern formation)

IT 26376-86-3, Modaflow
RL: MOA (Modifier or additive use); USES (Uses)
(as leveling agent in photoimaging crosslinkable coating compn. for dielec. pattern formation)

IT 84540-57-8, Propylene glycol methyl ether acetate
RL: MOA (Modifier or additive use); USES (Uses)
(as solvent in photoimaging crosslinkable coating compn. for dielec.

pattern formation)

IT 9003-17-2P
 RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (butadiene rubber, hydroxy-terminated, epoxidized, Poly bd 605; pos.-tone photoimaging crosslinkable coating compn. for dielec. pattern formation contg.)

IT 234100-56-2, Laminar AT
 RL: DEV (Device component use); USES (Uses) (in use with pos.-tone photoimaging crosslinkable coating compns. in fabrication of printed circuit boards)

IT 9016-83-5P, HRJ 10805 58068-97-6P, Dynasylan IMEO 73309-46-3P, Flexo Blue 680 129291-51-6P, Santolink EP 560 139301-16-9P, CD 1012 154531-35-8P, **EPON** 164
 RL: IMF (Industrial manufacture); NUU (Other use, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (pos.-tone photoimaging crosslinkable coating compn. for dielec. pattern formation contg.)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
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- (5) Sanpuku Co Ltd; JP 06102662 A CA
- (6) Shipley Co; EP 0565858 A 1993 CA
- (7) Takashi, Y; US 5532105 A 1996 CA

L7 ANSWER 10 OF 46 CA COPYRIGHT 2003 ACS
 AN 130:231015 CA
 TI Method for applying curable fill compositions to apertures in a circuit board substrate
 IN Kulesza, Joseph Duane; Markovich, Voya Rista; Papathomas, Kostas; Sabia, Joseph Gene
 PA International Business Machines Corporation, USA
 SO U.S., 17 pp., Cont. of U.S. Ser. No. 468,924, abandoned.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM H05K003-12
 ICS H05K003-42; H05K003-34
 NCL 029852000
 CC 76-3 (Electric Phenomena)
 Section cross-reference(s): 38, 39

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5887345	A	19990330	US 1997-960770	19971020
	US 5766670	A	19980616	US 1993-154341	19931117
	JP 07188391	A2	19950725	JP 1994-231249	19940927
	US 5571593	A	19961105	US 1995-467558	19950606
	US 6194024	B1	20010227	US 1995-469449	19950606
	US 6106891	A	20000822	US 1998-215992	19981218
	US 6134772	A	20001024	US 1998-215993	19981218
	US 2001007289	A1	20010712	US 2001-778702	20010207
	US 2001009066	A1	20010726	US 2001-795852	20010228
PRAI	US 1993-154341	A3	19931117		
	US 1995-468924	B1	19950606		
	US 1995-467558	A3	19950606		
	US 1995-467938	A3	19950606		
	US 1995-469449	A3	19950606		
	US 1997-960770	A3	19971030		
	US 1998-47984	A3	19980325		

AB The invention permits solder joints to be made directly to via and through holes without the solder being wicked into the vias or through holes, by

filling plated through holes with an epoxy or cyanate fill compn. When cured and overplated, the fill compn. provides support for the solder joint and provides a flat solderable surface for the interconnection. In certain embodiments, the cured fill compns. offer a further advantage of being conductive. The invention also relates to several novel methods for filling through holes with such fill compns., and to resistors located in through holes and vias.

- ST curable fill compn aperture circuit board substrate; solder joint formation via through hole curable fill; epoxy fill compn via through hole circuit board; cyanate fill compn via through hole circuit board
- IT Interconnections (electric)
Printed circuit boards
(applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT Polycyanurates
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT Epoxy resins, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(applying epoxy fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT Fillers
(carbon black, Vulcan P, Vulcan XC72, and Black Pearls 2000; applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT Carbon black
(fillers, Vulcan P, Vulcan XC72, and Black Pearls 2000; applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT Butadiene rubber, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(hydroxy-terminated, epoxidized; applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT Resistors
(in through holes and vias in circuit boards)
- IT Joints, mechanical
(soldered; applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT 85-42-7, Hexahydrophthalic anhydride 103-83-3, Benzyldimethylamine 557-09-5, Zinc octanoate 931-36-2, 2-Ethyl-4-methylimidazole 7440-50-8, Copper, processes 25068-38-6, **EPON** 828 25085-98-7, ERL-4221 25550-51-0, Methylhexahydrophthalic anhydride 47073-92-7, Arocy L10 63992-68-7, ECN-1280 127667-44-1, RTX-366 132773-65-0, Dinonylphenyl cyanate 166515-87-3, Ciba-Geigy 8212 166516-57-0, **Tone** 0231
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)
- IT 9003-17-2
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(butadiene rubber, hydroxy-terminated, epoxidized; applying curable fill compns. to apertures in a circuit board substrate for formation of solder joints)

RE

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- (3) Anon; JP 01059892 1989
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- (6) Anon; JP 06260756 1994 CA
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- (9) Barry; US 4278706 1981
- (10) Curtis; US 5198965 1993
- (11) Denes; US 4415607 1983
- (12) Freyman; US 5006673 1991
- (13) Friend; US 5098771 1992 CA
- (14) Gedney; US 5483421 1996
- (15) Goswami; US 4692272 1987 CA
- (16) Hatakeyama; US 5481795 1996
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- (18) Ichimura; US 5350811 1994 CA
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- (28) Reed; US 4964948 1990 CA
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- (30) Schnitker; US 5047368 1991
- (31) Shiga; US 4780957 1988
- (32) Vulliez; US 3546015 1970

L7 ANSWER 11 OF 46 CA COPYRIGHT 2003 ACS

AN 130:96897 CA

TI Cationic UV cured coatings using epoxidized soybean oil

AU Raghavachar, Ramya; Sarnecki, Greg; Baghdachi, Jamil; Massingill, John

CS Coatings Research Institute, Eastern Michigan University, Ypsilanti, MI, USA

SO RadTech Report (1998), 12(5), 36-40

CODEN: RARPEH; ISSN: 1056-0793

PB RadTech International North America

DT Journal

LA English

CC 42-9 (Coatings, Inks, and Related Products)

AB Coating and ink low-viscosity formulations with up to 40% epoxidized soybean oil [ESBO, Vikoflex 7170, Elf Atochem Inc.] in the epoxy/polyol resin blends were studied. The epoxy resins are cycloaliph. ERL-4221E Epoxyl, Union Carbide and Epon 828, Shell Chem. Co., and the polyols are **Tone** 0301 caprolactone triol, Union Carbide; Bisphenol A; and 4,8-bis(hydroxymethyl)-tricyclo-[5.2.1.0]-decane or dicyclopentadiene dimethylol, Aldrich Chem. Co. Superacid photoinitiators, FX-512, 3M for UV cured systems and UVI 6974 and UVI 6990, Union Carbide were also used. Hardness, adhesion and solvent resistance of UV coatings were affected by the initiator used and the amt. of epoxidized soybean oil in the formulation. Better UV coatings were obtained with combinations of photoinitiators instead of single initiators. Using a combination of triaryl sulfonium hexafluoroantimonate salt and hexafluoro phosphate salt of an arom. sulfonium coproduct improved adhesion while giving improved pencil hardness. The hardness of coatings with epoxidized soybean oil is adjustable by changing the epoxy/polyol ratio, using harder polyols and using harder epoxy resins.

ST epoxidized soybean oil epoxy polyol UV coating; hardness UV epoxy polyol coating photoinitiator effect

IT Coating materials
(UV-curable; effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT Adhesion, physical
Hardness (mechanical)
(effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT Epoxy resins, uses
Polymer blends
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT Soybean oil
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(epoxidized, Vikoflex 7170; effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT Polymerization catalysts
(photopolymer.; effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT 104558-94-3, Cyacure UVI 6974
RL: CAT (Catalyst use); USES (Uses)
(arylsulfonium hexafluoroantimonate photoinitiator; effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT 25068-38-6, **Epon** 828 25085-98-7, ERL-4221E 26160-83-8
54735-63-6, **Tone** 0301
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT 75482-18-7, FX-512
RL: CAT (Catalyst use); USES (Uses)
(phenylsulfonium fluorophosphate photoinitiator; effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

IT 104558-95-4, Cyacure UVI 6990
RL: CAT (Catalyst use); USES (Uses)
(triphenyldisulfonium F6P photoinitiator; effect of photoinitiator and epoxidized soybean oil content on hardness and adhesion of cationic UV cured epoxy-polyol coatings)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

- (1) Alm, R; J Coatings Technol 1981, V53(683), P45 CA
- (2) Alm, R; Modern Paint and Coatings 1980, P88 CA
- (3) Crivello, J; Macromolecular Reports 1996, VA33(Suppls 5 & 6), P251
- (4) Eaton, R; Waterborne Higher-solids and Powder Coatings Symposium 1996
- (5) Koleske, J; Federation Series on Coatings Technology 1991
- (6) Muturi, P; Proc of ACS Div of Polym Mater Sci Eng 1992, V67, P70
- (7) Muturi, P; Proc of ACS Div of Polym Mater Sci Eng 1993, V68, P178 CA
- (8) Raghavachar, R; submitted for publication in J Coat Technol
- (9) Union Carbide Bulletin; UC-773 Compliant Coatings based on Cycloaliphatic Epoxies and Tone[TM] Polyols
- (10) Union Carbide Bulletin; UC-968 Cyacure[R] Cycloaliphatic Epoxides Cationic UV Cure

L7 ANSWER 12 OF 46 CA COPYRIGHT 2003 ACS

AN 129:182093 CA

TI Positive-tone photoimageable crosslinkable coating

IN Hawkins, Robert E.; Briguglio, James J.

PA Morton International, Inc., USA

SO Eur. Pat. Appl., 10 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM G03F007-022
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 Section cross-reference(s): 76

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 859282	A1	19980819	EP 1998-301153	19980217
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	CA 2228654	AA	19980818	CA 1998-2228654	19980203
	CN 1199874	A	19981125	CN 1998-105309	19980218
	CN 1224858	A	19990804	CN 1998-118329	19980810
PRAI	US 1997-801682		19970218		
	US 1998-16003		19980130		
AB	The imaged portion of a pos.-tone photoimageable dielec. coating compn. for forming innerlayers of a multilayer printed circuit board comprising a combination of a novolak resin and a naphthoquinonediazide is developed in an aq. alk. developer and the developed coating is rendered highly stable, chem. and thermally, by the presence therein of a crosslinkable resin and a dicyandiamide or a thermally labile halogen-contg. curing catalyst by heating the coating to cure it.				
ST	pos crosslinkable photoimaging compn elec circuit; dielec pos crosslinkable photoimaging compn quinonediazide				
IT	Butadiene rubber, uses RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (hydroxy-terminated, epoxidized, Poly-bd 605; pos. photoimaging compns. for forming crosslinked dielec. innerlayers for printed circuit boards contg.)				
IT	Phenolic resins, uses RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (novolak; pos. photoimaging compns. for forming crosslinked dielec. innerlayers for printed circuit boards contg. quinonediazides and)				
IT	Printed circuits (pos. photoimaging compns. contg. novolak resins and quinonediazides for forming crosslinked dielec. innerlayers for)				
IT	Photoimaging materials (pos.; contg. novolak resins and quinonediazides for forming crosslinked dielec. innerlayers for printed circuit boards)				
IT	9003-17-2 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (butadiene rubber, hydroxy-terminated, epoxidized, Poly-bd 605; pos. photoimaging compns. for forming crosslinked dielec. innerlayers for printed circuit boards contg.)				
IT	594-65-0, Trichloroacetamide 3584-23-4 9016-83-5, HRJ10805 17025-47-7, Tribromomethylphenylsulfone 69432-40-2 126691-65-4 129291-51-6, Santolink EP 560 154531-35-8, EPON 164 190260-57-2 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses) (pos. photoimaging compns. for forming crosslinked dielec. innerlayers for printed circuit boards contg.)				

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; PATENT ABSTRACTS OF JAPAN 1987, V011(134), PP-571
- (2) Anon; PATENT ABSTRACTS OF JAPAN 1997, V097(004)
- (3) Ciba Geigy Ag; EP 0530148 A 1993 CA
- (4) Hitachi Ltd; JP 61009648 A CA

- (5) Nec Corp; JP 61275749 A 1986 CA
- (6) Nippon Kayaku Co Ltd; JP 08319307 A 1996 CA
- (7) Sanpuku Co Ltd; JP 06102662 A CA
- (8) Shipley Co; EP 0565858 A 1993 CA
- (9) Yamadera, T; US 5532105 A 1996 CA

L7 ANSWER 13 OF 46 CA COPYRIGHT 2003 ACS
AN 128:314981 CA
TI High-aspect-ratio, ultrathick, negative-**tone** near-UV photoresist for MEMS applications
AU Despont, M.; Lorenz, H.; Fahrni, N.; Brugger, J.; Renaud, P.; Vettiger, P.
CS IBM Research Division, Zurich Research Laboratory, Rueschlikon, CH-8803, Switz.
SO Proceedings - IEEE Annual International Workshop on Micro Electro Mechanical Systems: An Investigation of Micro Structures, Sensors, Actuators, Machines and Robots, 10th, Nagoya, Jan. 26-30, 1997 (1997), 518-522 Publisher: Institute of Electrical and Electronics Engineers, New York, N. Y.
CODEN: 65XZAT
DT Conference
LA English
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB Detailed studies of the limits of a new neg.-**tone** near-UV resist (IBM SU-8) were performed. SU-8 is an epoxy-based resist designed specifically for ultra-thick, high-aspect-ratio MEMS-type applications. With single-layer coatings, thicknesses of >500 .mu.m can be achieved reproducibly. Thicker resist layers can be made by multiple coatings, and the authors have achieved exposures in 1200-.mu.m-thick, double coated SU-8 resist layers. The aspect ratio for near-UV (400 nm) exposed and developed structures can be >18 and remains const. in the thickness range between 80 and 1200 .mu.m. Vertical sidewall profiles result in good dimensional control over the entire resist thickness. This is the highest aspect ratio reported for near-UV exposures and resist thicknesses. These results will open up new possibilities for low-cost LIGA-type processes for MEMS applications. The SU-8 material has interesting mech. properties which also makes it attractive for photoplastic device fabrication.
ST **Epon** SU 8 neg UV photoresist; ratio ultrathick **tone** UV photoresist MEMS
IT Photolithography
Photoresists
Scanning electron microscopy
(high-aspect-ratio, ultrathick, neg.-**tone** near-UV photoresist for MEMS applications)
IT 177403-04-2, **Epon** SU-8
RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(high-aspect-ratio, ultrathick, neg.-**tone** near-UV photoresist for MEMS applications)

L7 ANSWER 14 OF 46 CA COPYRIGHT 2003 ACS
AN 128:205503 CA
TI Toughened epoxy resin system and radiation curing epoxy compositions
IN Janke, Christopher J.; Dorsey, George F.; Havens, Stephen J.; Lopata, Vincent J.
PA Lockheed Martin Energy Systems, Inc., USA
SO U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 507,569.
CODEN: USXXAM
DT Patent
LA English
IC ICM C08J003-28
ICS C08G059-18; C08G065-26; C08G065-28
NCL 522031000
CC 37-6 (Plastics Manufacture and Processing)
FAN.CNT 2
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	US 5726216	A	19980310	US 1996-676768	19960708
	US 5877229	A	19990302	US 1995-507569	19950726
	CA 2224286	AA	19970213	CA 1996-2224286	19960726
	EP 843685	Al	19980527	EP 1996-925514	19960726
	R: BE, DE, ES, FR, GB, IT, NL				
PRAI	US 1995-507569		19950726		
	US 1996-676768		19960708		
	WO 1996-US12302		19960726		
AB	An epoxy resin compn. is formulated with a cationic initiator, such as a diaryliodonium or triarylsulfonium salt and a toughening agent such as a thermoplastic, hydroxy-contg. thermoplastic oligomer, epoxy-contg. thermoplastic oligomer, reactive flexibilizer, rubber, or their mixt. Radiation (e.g. electron beam radiation, x-ray radiation, and gamma radiation)-cured compns. have high glass transition temps., good mech. properties, and good toughness. Thus, to the blend of Udel P-1700 NT polysulfone 30, Tactix 123 270, was added 9 g of (4-octyloxyphenyl)phenyliodonium hexafluoroantimonate, and mixing was complete after 0.5 h to give a mixt. having viscosity (60.degree.) 7300 cP and after electron beam curing a material having fracture toughness 0.680 MPa m0.5; vs. 0.411 MPa m0.5 without polysulfone toughener.				
ST	electron beam curing toughened epoxy resin; crosslinking toughened epoxy resin; radiation crosslinking toughened epoxy resin; polysulfone toughened epoxy resin; bisphenol A epoxy toughened curing; impact resistance blend epoxy resin curing; thermoplastic blend epoxy resin curing; rubber blend epoxy resin curing; flexibilizer blend epoxy resin curing				
IT	Epoxides RL: MOA (Modifier or additive use); USES (Uses) (C12-14-alkyl, Vikolox 14; toughened epoxy resin system and curing by radiation methods)				
IT	Acrylic rubber RL: MOA (Modifier or additive use); USES (Uses) (XU 71790.04L; toughened epoxy resin system and curing by radiation methods)				
IT	Polyamide fibers, uses RL: TEM (Technical or engineered material use); USES (Uses) (aramid; toughened epoxy resin system and curing by radiation methods)				
IT	Synthetic rubber, uses RL: MOA (Modifier or additive use); USES (Uses) (butadiene-methacrylate, graft, EXL-2330; toughened epoxy resin system and curing by radiation methods)				
IT	Onium compounds RL: CAT (Catalyst use); USES (Uses) (catalysts; toughened epoxy resin system and curing by radiation methods)				
IT	Crosslinking catalysts (cationic, diaryliodonium salt; toughened epoxy resin system and curing by radiation methods)				
IT	Electron beams (curing by; toughened epoxy resin system and curing by radiation methods)				
IT	Castor oil RL: MOA (Modifier or additive use); USES (Uses) (diglycidyl ethers, in toughener; toughened epoxy resin system and curing by radiation methods)				
IT	Palm oil RL: IMF (Industrial manufacture); PREP (Preparation) (diglycidyl ethers, polymers with epoxy resin; toughened epoxy resin system and curing by radiation methods)				
IT	Fatty acids, preparation RL: IMF (Industrial manufacture); PREP (Preparation) (dimer acids, glycidyl esters, polymers with epoxy resins; toughened epoxy resin system and curing by radiation methods)				
IT	Soybean oil RL: MOA (Modifier or additive use); USES (Uses)				

(epoxidized, VIKOFLEX 7170; toughened epoxy resin system and curing by radiation methods)

IT Synthetic rubber, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (epoxy, EKP 206; toughened epoxy resin system and curing by radiation methods)

IT Polyethers, uses
 Polyethers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (epoxy; toughened epoxy resin system and curing by radiation methods)

IT Polyolefin fibers
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ethylene; toughened epoxy resin system and curing by radiation methods)

IT Carbon fibers, properties
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (graphite; toughened epoxy resin system and curing by radiation methods)

IT Styrene-butadiene rubber, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (hydrogenated, block, triblock, maleated, KRATON FG 1901X; toughened epoxy resin system and curing by radiation methods)

IT Butadiene rubber, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (hydroxy-terminated, epoxidized, POLY BD 600; toughened epoxy resin system and curing by radiation methods)

IT Polyurethanes, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (in toughener; toughened epoxy resin system and curing by radiation methods)

IT Epoxy resins, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (phenolic, novolak; toughened epoxy resin system and curing by radiation methods)

IT Epoxy resins, uses
 Epoxy resins, uses
 Polyimides, uses
 Polyimides, uses
 Polysulfones, uses
 Polysulfones, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (polyether-; toughened epoxy resin system and curing by radiation methods)

IT Polyethers, uses
 Polyethers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (polyimide-; toughened epoxy resin system and curing by radiation methods)

IT Polyethers, uses
 Polyethers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (polysulfone-; toughened epoxy resin system and curing by radiation methods)

IT Fatty acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (soya, epoxidized, Me esters, Vikoflex 7010; toughened epoxy resin system and curing by radiation methods)

IT Impact-resistant materials
 (thermoplastics and rubbers for impact improvers; toughened epoxy resin system and curing by radiation methods)

IT Polyamides, uses
 Polyimides, uses
 Polysulfones, uses
 RL: MOA (Modifier or additive use); USES (Uses)

(toughened epoxy resin system and curing by radiation methods)

IT Epoxy resins, properties
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(toughened epoxy resin system and curing by radiation methods)

IT Carbon fibers, properties
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(toughened epoxy resin system and curing by radiation methods)

IT Glass fibers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(toughened epoxy resin system and curing by radiation methods)

IT 9003-17-2
RL: MOA (Modifier or additive use); USES (Uses)
(butadiene rubber, hydroxy-terminated, epoxidized, POLY BD 600; toughened epoxy resin system and curing by radiation methods)

IT 7782-42-5, Graphite, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fibers, for laminates; toughened epoxy resin system and curing by radiation methods)

IT 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(fibers; toughened epoxy resin system and curing by radiation methods)

IT 63957-64-2, DEN 438
RL: MOA (Modifier or additive use); USES (Uses)
(in laminate structure; toughened epoxy resin system and curing by radiation methods)

IT 9003-55-8
RL: MOA (Modifier or additive use); USES (Uses)
(styrene-butadiene rubber, hydrogenated, block, triblock, maleated, KRATON FG 1901X; toughened epoxy resin system and curing by radiation methods)

IT 108-31-6D, 2,5-Furandione, reaction products with hydrogenated triblock SBR, uses 1675-54-3D, reaction products with acrylic rubber 9072-62-2, DER 736 24936-74-1, Orgasol 3501 24937-16-4, Orgasol 2001 25068-38-6, DER 661 25135-51-7, UDEL P-1700NT 25154-01-2, Bis(4-chlorophenyl) sulfone-bisphenol A copolymer 30401-87-7, DER 732 54735-63-6, **Tone** 310 61128-24-3, ULTEM 1000 61128-24-3, Ultem 1010-1000 104492-73-1, Ultem 1000-1000 180189-82-6, Heloxy 505 184007-92-9, PY 322 184436-30-4, **Epon** 58134 184436-33-7, Heloxy 71 188417-58-5, RADEL A-200NT 188417-81-4, Ultem 1040-1000 188417-86-9, IMITEC X-902
RL: MOA (Modifier or additive use); USES (Uses)
(toughened epoxy resin system and curing by radiation methods)

IT 25085-99-8, Tactix 123 34590-59-5, Tactix 742 39049-72-4, ERL 2258
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)
(toughened epoxy resin system and curing by radiation methods)

L7 ANSWER 15 OF 46 CA COPYRIGHT 2003 ACS

AN 128:41639 CA

TI Photosensitive resin composition for rapid prototyping and a process for the manufacture of 3-dimensional objects

IN Lapin, Stephen C.; Sullivan, Michael G.

PA DSM N.V., Neth.

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM G03F007-027

CC 74-7 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9742549	A1	19971113	WO 1997-NL261	19970507
	W: AU, CA, JP, KR				

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

AU 9726534	A1	19971126	AU 1997-26534	19970507
EP 897558	A1	19990224	EP 1997-918429	19970507
EP 897558	B1	20000927		

R: CH, DE, FR, GB, IT, LI, NL

JP 2000509743	T2	20000802	JP 1997-539805	19970507
US 6251557	B1	20010626	US 1999-390678	19990907

PRAI US 1996-17211P P 19960509

WO 1997-NL261 W 19970507

US 1997-855720 B1 19970508

AB The invention relates to a photosensitive resin compn. for rapid prototyping comprising: (a) about 30-70 % of at least two epoxy resins, at least one of these resins is solid at room temp. and comprises arom. groups, and at least one of these resins is liq., having a viscosity at 25.degree. lower than about 1000 Pa.s, (b) about 15-50 % of at least one multifunctional acrylate compd., (c) about 5-30 % of a hydroxy functional compd., (d) about 1-6 % cationic photoinitiator, and (e) about 1-6 % free radical photoinitiator. The invention further relates to a process for the manufg. of 3-dimensional objects, known as rapid prototyping, wherein said photosensitive resin compn. is used.

ST photosensitive resin compn three dimensional object; epoxy resin photosensitive resin

IT Imaging
(3-dimensional; photosensitive resin compn. for rapid prototyping and process for manuf. of 3-dimensional objects)

IT Light-sensitive materials
(photosensitive resin compn. for rapid prototyping and process for manuf. of 3-dimensional objects)

IT 25068-38-6, Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane
RL: TEM (Technical or engineered material use); USES (Uses)
(Epon 1001F, Epon 828; photosensitive resin compn. for rapid prototyping and process for manuf. of 3-dimensional objects)

IT 28961-43-5, Ethoxylated trimethylolpropane triacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(SR 499; photosensitive resin compn. for rapid prototyping and process for manuf. of 3-dimensional objects)

IT 104558-94-3, UVI 6974
RL: MOA (Modifier or additive use); USES (Uses)
(cationic initiator for photosensitive resin compn. for rapid prototyping and process for manuf. of 3-dimensional objects)

IT 947-19-3, Irgacure 184
RL: MOA (Modifier or additive use); USES (Uses)
(free-radical initiator for photosensitive resin compn. for rapid prototyping and process for manuf. of 3-dimensional objects)

IT 25085-98-7, UVR 6105 54735-63-6, **Tone** 301 68924-34-5
75577-70-7, SR 454 101484-78-0, **Tone** M 100 102641-47-4, Photomer 3016
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive resin compn. for rapid prototyping and process for manuf. of 3-dimensional objects)

L7 ANSWER 16 OF 46 CA COPYRIGHT 2003 ACS

AN 126:179056 CA

TI Stabilizers for use with photoacid precursor formulations

IN Lawton, John Alan; Nebe, William John; Thommes, Glen Anthony

PA E.I. Du Pont De Nemours and Company, USA

SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2

DT Patent

LA English

IC ICM G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9641238	A1	19961219	WO 1996-US8486	19960604
	W: JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5665792	A	19970909	US 1995-488468	19950607
	EP 830640	A1	19980325	EP 1996-919043	19960604
	EP 830640	B1	20010919		
	R: DE, FR, GB				
	JP 11506842	T2	19990615	JP 1996-501072	19960604
PRAI	US 1995-488468	A	19950607		
	WO 1996-US8486	W	19960604		

AB The present invention discloses stabilizers for formulations contg. photoacid precursors and cationically polymerizable materials. The stabilizers have a limited soly. in the formulations and are in soly. equil. in the formulations. The stabilizers are present as a solid phase in the formulations in excess of their soly. limit and the concn. of the stabilizers is continuously replenished as the stabilizers react with undesired free acids.

ST photoacid precursor stabilizer polymerizable imaging compn

IT Photoimaging materials

(polymerizable; contg. photoacid precursors and stabilizers for neutralizing undesirable free acids)

IT 502-44-3D, 2-Oxepanone, acrylate 1720-32-7, 1,6-Diphenyl-1,3,5-hexatriene 15625-89-5, Trimethylolpropane triacrylate 25085-98-7, Cyacure UVR-6105 54735-63-6, **Tone** 0301 68924-34-5, 75081-21-9, Isopropylthioxanthone 104558-94-3, UVI 6974 106797-53-9, Irgacure 2959 121239-75-6, (4-Octyloxyphenyl)phenyliodonium hexafluoroantimonate 135783-82-3 187175-71-9, **Epon** HPT 1050

RL: TEM (Technical or engineered material use); USES (Uses)

(photoimaging compns. contg. stabilizers for neutralization of free acids and)

IT 298-14-6

RL: TEM (Technical or engineered material use); USES (Uses)

(stabilizer for neutralization of free acids in photoimaging compns. contg. photoacid precursors)

IT 144-55-8, Sodium hydrogen carbonate, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(stabilizer for neutralization of free acids in photoresists contg. photoacid precursors)

L7 ANSWER 17 OF 46 CA COPYRIGHT 2003 ACS

AN 126:179049 CA

TI Photohardenable epoxy composition

IN Lawton, John Alan; Nebe, William John; Thommes, Glen Anthony; Caspar, Jonathan V.

PA E.I. Du Pont De Nemours and Company, USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM G03F007-029

ICS G03C009-08; B29C067-00

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
P1	WO 9641239	A1	19961219	WO 1996-US8488	19960604
	W: JP				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5707780	A	19980113	US 1996-612509	19960307
	EP 830641	A1	19980325	EP 1996-919045	19960604
	R: DE, FR, GB				
	JP 11507090	T2	19990622	JP 1996-501074	19960604

PRAI US 1995-476482 19950607
 WO 1996-US8488 19960604

AB A photohardenable compn. esp. suitable for use in solid imaging comprises cationically polymerizable org. substances, free radically polymerizable org. substances, a photoacid generator, a free-radical initiator, and, optionally water and a sensitizer. The compn. allows for the prodn. of articles by solid imaging process techniques that show little or no distortion, high accuracy, and excellent clarity. The compn. is low in toxicity and has low sensitivity to water.

ST photohardenable epoxy resin compn solid photoimaging

IT Photoimaging materials
 (contg. epoxy resins for imaging in solid phase)

IT Epoxy resins, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (solid photoimaging compns. contg.)

IT 191-24-2, 1,12-Benzoperylene 502-44-3D, 2-Oxepanone, triol 947-19-3, Irgacure 184 1720-32-7, 1,6-Diphenyl-1,3,5-hexatriene 2399-48-6, Tetrahydrofurfuryl acrylate 3029-40-1, 1,8-Diphenyl-1,3,5,7-octatetraene 15625-89-5, Trimethylolpropane triacrylate 25085-98-7, Cyacure UVR-6105 29611-97-0, Heloxy 67 37348-52-0, Den 431 37370-68-6, Ecn 1273 54735-63-6, **Tone** 301 68924-34-5 93365-33-4 104558-94-3, UVI 6974 106797-53-9, Irgacure 2959 159119-01-4 182893-16-9, Ecn 9495 187175-71-9, **Epon** HPT 1050
 RL: TEM (Technical or engineered material use); USES (Uses)
 (solid photoimaging compns. contg.)

L7 ANSWER 18 OF 46 CA COPYRIGHT 2003 ACS

AN 126:19771 CA

TI Toughened epoxy resins cured by electron beam radiation

AU Janke, Christopher J.; Dorsey, George F.; Havens, Stephen J.; Lopata, Vincent J.

CS Oak Ridge National Laboratory, Oak Ridge Centers Manufacturing Technology, Oak Ridge, TN, 37831-8048, USA

SO International SAMPE Technical Conference (1996), 28(Technology Transfer in a Global Community), 877-889
 CODEN: ISTCEF; ISSN: 0892-2624

PB Society for the Advancement of Material and Process Engineering

DT Journal

LA English

CC 37-6 (Plastics Manufacture and Processing)

AB To increase the fracture toughness (KIC) of electron beam [EB] cured epoxy materials, toughening agents were incorporated into the epoxy resin/photoinitiator [(4-octyloxyphenyl)phenyliodonium hexafluoroantimonate , Aryl Fluoroantimonate] blend in concn. 5-30%. The epoxy resins used were Tactix 123, Tactix 556, Tactix 742, DER 661, and ERL 2258; the toughening agents were Udel P-1700 NT, Radel A-200 NT, Ultem 1000, hydroxy terminated polysulfone oligomers, Orgasol 2001, Vikoflex 7010, Vikoflex 7170, Vikoflex 7190, Vikolox 14, DER 736, Heloxy 32, Heloxy 68, Heloxy 71, Heloxy 505, Poly bd 600, **Tone** 301, PY 322, Dow XU 71790.04L, EXL 2330, **Epon** 58134, and Kraton FG 1901X. High mol. wt. thermoplastics such as Udel P-1700, Radel A-200, and Ultem 1000 and hydroxy terminated polysulfone oligomers nearly doubled the KIC with no redn. in glass transition temp. The viscosity of the thermoplastic/epoxy resin/photoinitiator blends was extremely high. Reactive flexibilizers and rubbers also provided tougher materials, but sometimes with redn. in glass transition temp. For example, a blend of 10% Shell Kraton FG 1901 [maleic anhydride terminated SEBS copolymer] with Dow Tactix 123 [bisphenol A epoxy] contg. 3 phr (4-octyloxyphenyl)phenyliodonium hexafluoroantimonate was irradiated at a total dosage of 150 kGy. The glass transition temp. of the cured material was 171.degree. and the KIC was 0.92 MPa/ml/2.

ST epoxy resin electron beam cured toughening; polysulfone toughening agent epoxy photoinitiator; polyetherimide blend EB epoxy impact strength

IT Epoxides
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical

process); PRP (Properties); PROC (Process); USES (Uses)
 (C12-14-alkyl, Vikolox 14; epoxy resins blended with toughening agents
 and cured by electron beam for enhanced strength without decrease in
 Tg)

IT Acrylic rubber
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (XU 71790.04L; epoxy resins blended with toughening agents and cured by
 electron beam for enhanced strength without decrease in Tg)

IT Synthetic rubber, properties
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (butadiene-methacrylate, graft, Acryloid EXL 2330; epoxy resins blended
 with toughening agents and cured by electron beam for enhanced strength
 without decrease in Tg)

IT Fatty acids, properties
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (dimer acids, esters, diglycidyl esters, epoxy; epoxy resins blended
 with toughening agents and cured by electron beam for enhanced strength
 without decrease in Tg)

IT Soybean oil
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (epoxidized, Vikoflex 7170; epoxy resins blended with toughening agents
 and cured by electron beam for enhanced strength without decrease in
 Tg)

IT Linseed oil
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (epoxidized, Vikoflex 7190; epoxy resins blended with toughening agents
 and cured by electron beam for enhanced strength without decrease in
 Tg)

IT Crosslinking
 Electron beams
 Fracture toughness
 Glass transition temperature
 Impact strength
 Impact-resistant materials
 (epoxy resins blended with toughening agents and cured by electron beam
 for enhanced strength without decrease in Tg)

IT Epoxy resins, properties
 Polyurethanes, properties
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (epoxy resins blended with toughening agents and cured by electron beam
 for enhanced strength without decrease in Tg)

IT Polymer blends
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (epoxy-polyamide; epoxy resins blended with toughening agents and cured
 by electron beam for enhanced strength without decrease in Tg)

IT Fatty acids, properties
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (esters, soya, epoxidized, Me esters, Vikoflex 7010; epoxy resins
 blended with toughening agents and cured by electron beam for enhanced
 strength without decrease in Tg)

IT Castor oil
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (glycidyl ether; epoxy resins blended with toughening agents and cured
 by electron beam for enhanced strength without decrease in Tg)

IT Styrene-butadiene rubber, properties
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical

process); PRP (Properties); PROC (Process); USES (Uses)
(hydrogenated, block, triblock, maleated, Kraton FG 1901x; epoxy resins
blended with toughening agents and cured by electron beam for enhanced
strength without decrease in Tg)

IT Polysulfones, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(hydroxy-terminated oligomers; epoxy resins blended with toughening
agents and cured by electron beam for enhanced strength without
decrease in Tg)

IT Butadiene rubber, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(hydroxy-terminated, epoxidized, Poly bd 600; epoxy resins blended with
toughening agents and cured by electron beam for enhanced strength
without decrease in Tg)

IT Epoxy resins, properties
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)
(phenolic, novolak; epoxy resins blended with toughening agents and
cured by electron beam for enhanced strength without decrease in Tg)

IT Polyoxyalkylenes, properties
Polyoxyalkylenes, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(polyamide-; epoxy resins blended with toughening agents and cured by
electron beam for enhanced strength without decrease in Tg)

IT Polyimides, properties
Polyimides, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(polyether-, arom.; epoxy resins blended with toughening agents and
cured by electron beam for enhanced strength without decrease in Tg)

IT Polysulfones, properties
Polysulfones, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(polyether-; epoxy resins blended with toughening agents and cured by
electron beam for enhanced strength without decrease in Tg)

IT Polyethers, properties
Polyethers, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(polyimide-, arom.; epoxy resins blended with toughening agents and
cured by electron beam for enhanced strength without decrease in Tg)

IT Polyamides, properties
Polyamides, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(polyoxyalkylene-; epoxy resins blended with toughening agents and
cured by electron beam for enhanced strength without decrease in Tg)

IT Polyethers, properties
Polyethers, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(polysulfone-; epoxy resins blended with toughening agents and cured by
electron beam for enhanced strength without decrease in Tg)

IT Fatty acids, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(soya, epoxidized, Me esters, Vikoflex 7010; epoxy resins blended with
toughening agents and cured by electron beam for enhanced strength
without decrease in Tg)

IT 24937-16-4, Nylon 12
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical

process); PRP (Properties); PROC (Process); USES (Uses)
 (Orgasol 2001UD-NAT2; epoxy resins blended with toughening agents and
 cured by electron beam for enhanced strength without decrease in Tg)

IT 9003-17-2
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (butadiene rubber, hydroxy-terminated, epoxidized, Poly bd 600; epoxy
 resins blended with toughening agents and cured by electron beam for
 enhanced strength without decrease in Tg)

IT 121239-75-6, (4-Octyloxyphenyl)phenyliodonium hexafluoroantimonate
 RL: CAT (Catalyst use); USES (Uses)
 (epoxy resins blended with toughening agents and cured by electron beam
 for enhanced strength without decrease in Tg)

IT 9072-62-2, DER 736 25085-99-8D, derivs. 25135-51-7, Udel P-1700
 25154-01-2, Bisphenol A-4,4'-dichlorodiphenylsulfone copolymer
 25667-42-9, Radel A-200 30401-87-7, Heloxy 32 54735-63-6, **Tone**
 301 54847-49-3, Heloxy 68 61128-24-3, Ultem 1000 61128-46-9,
 2,2-Bis[4-(3,4-dicarboxyphenoxy)phenyl]propane dianhydride-m-
 phenylenediamine copolymer 65228-97-9, Bis(p-fluorophenyl)
 sulfone-4,4'-sulfonyldiphenol copolymer 180189-82-6, Heloxy 505
 184007-92-9, PY 322 184436-30-4, **Epon** 58134 184436-33-7,
 Heloxy 71
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (epoxy resins blended with toughening agents and cured by electron beam
 for enhanced strength without decrease in Tg)

IT 25068-38-6 25085-99-8 34590-59-5, Tactix 742 39049-72-4, ERL 2258
 135507-52-7, Tactix 556
 RL: PEP (Physical, engineering or chemical process); PRP (Properties);
 PROC (Process)
 (epoxy resins blended with toughening agents and cured by electron beam
 for enhanced strength without decrease in Tg)

IT 25013-94-9, Butadiene-methacrylic acid copolymer
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (rubber; epoxy resins blended with toughening agents and cured by
 electron beam for enhanced strength without decrease in Tg)

IT 9003-55-8
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical
 process); PRP (Properties); PROC (Process); USES (Uses)
 (styrene-butadiene rubber, hydrogenated, block, triblock, maleated,
 Kraton FG 1901x; epoxy resins blended with toughening agents and cured
 by electron beam for enhanced strength without decrease in Tg)

L7 ANSWER 19 OF 46 CA COPYRIGHT 2003 ACS
 AN 125:116243 CA
 TI Visible light-curable epoxy system with enhanced depth of cure
 IN Kaisaki, David A.; Mitra, Sumita B.; Schultz, William J.; Devoe, Robert J.
 PA Minnesota Mining and Mfg. Co., USA
 SO PCT Int. Appl., 50 pp.
 CODEN: PIXXD2

DT Patent

LA English

IC ICM C08G059-68

ICS C08L063-00; A61K006-087

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9613538	A2	19960509	WO 1995-US14098	19951031
	WO 9613538	A3	19960620		
	W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT			

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR,
NE, SN, TD, TG

JP 10508067	T2	19951031	JP 1996-514828	19951031
JP 3321173	B2	20020903		
AU 9539718	A1	19960523	AU 1995-39718	19951031
EP 789721	A2	19970820	EP 1995-937686	19951031
EP 789721	B1	20010228		
R: DE, ES, FR, GB, IT				
ES 2154352	T3	20010401	ES 1995-937686	19951031
US 5856373	A	19990105	US 1997-943465	19971003
PRAI US 1994-331719	A	19941031		
US 1995-550635	B1	19951031		
WO 1995-US14098	W	19951031		

AB The title compn., useful as dental material, comprises (a) a cationically polymerizable epoxy resin, (b) a OH-contg. material, (c) an aryliodonium salt and (d) an .alpha.-dicarbonyl compd. having an extinction coeff. <1000 as visible-light sensitizer. For example, a homogeneous mixt. contg. UVR-6110 2.3997, THF polymer (av. mol. wt. 250) 0.6076, Ph2ISbF6 0.0151, and camphorquinone 0.0151 g gave 97% cure after exposing for 5 min to visible light.

ST epoxy resin compn visible light curing; polytetrahydrofuran additive photocurable epoxy resin; camphorquinone photopolymn sensitizer epoxy resin; photopolymn catalyst diphenyliodonium hexafluoroantimonate epoxy resin; dental epoxy resin visible light curing; phenyliodonium hexafluoroantimonate photopolymn catalyst epoxy resin

IT Dental materials and appliances
(visible-light-curable epoxy system with enhanced depth of cure)

IT Epoxy resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(visible-light-curable epoxy system with enhanced depth of cure)

IT Ketones, uses
RL: MOA (Modifier or additive use); USES (Uses)
(1,2-di-, sensitizers; visible-light-curable epoxy system with enhanced depth of cure)

IT Siloxanes and Silicones, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(di-Me, ethoxylated, visible-light-curable epoxy system with enhanced depth of cure)

IT Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(epoxy, visible-light-curable epoxy system with enhanced depth of cure)

IT Polyesters, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(hydroxy-terminated, visible-light-curable epoxy system with enhanced depth of cure)

IT Polymerization
(photochem., visible-light-curable epoxy system with enhanced depth of cure)

IT Epoxy resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polyester-, visible-light-curable epoxy system with enhanced depth of cure)

IT Alkadienes
Lactones
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(polymers, hydroxy-terminated; visible-light-curable epoxy system with enhanced depth of cure)

IT 25322-68-3, Polyethylene glycol

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (PEG 200 and PEG 400; visible-light-curable epoxy system with enhanced depth of cure)

IT 25322-69-4, Polypropylene glycol
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (PPG 400; visible-light-curable epoxy system with enhanced depth of cure)

IT 24979-97-3
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (Terathane 1000; visible-light-curable epoxy system with enhanced depth of cure)

IT 465-29-2, Camphorquinone
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (photosensitizer; visible-light-curable epoxy system with enhanced depth of cure)

IT 84-11-7, Phenanthrenequinone 96-04-8, 2,3-Heptanedione 107-22-2, Glyoxal 119-53-9 134-81-6, Benzil 431-03-8, Biacetyl 492-94-4, Fural 585-25-1, 2,3-Octanedione 600-14-6, 2,3-Pentanedione 765-87-7, 1,2-Cyclohexanedione 1720-32-7, 1,6-Diphenyl-1,3,5-hexatriene 3029-40-1, 1,8-Diphenyl-1,3,5,7-octatetraene 3848-24-6, 2,3-Hexanedione 4388-88-9, Pivalil 4437-51-8, 3,4-Hexanedione 5455-24-3, 4,5-Octanedione 5471-63-6, 1,3-Diphenylisobenzofuran 13706-89-3, 3,4-Heptanedione 20651-89-2 55804-67-6, Coumarin 334 68347-39-7, 3,3,7,7-Tetramethylcycloheptane-1,2-dione 81578-43-0, 3,3,8,8-Tetramethylcyclooctane-1,2-dione 139176-07-1
 RL: MOA (Modifier or additive use); USES (Uses)
 (sensitizer; visible-light-curable epoxy system with enhanced depth of cure)

IT 52754-92-4, Diphenyliodonium hexafluoroantimonate 58109-40-3, Diphenyliodonium hexafluorophosphate
 RL: CAT (Catalyst use); USES (Uses)
 (visible-light-curable epoxy system with enhanced depth of cure)

IT 112-27-6, Triethylene glycol 25265-75-2, Butanediol 27342-88-7, Dodecanol 54735-63-6, **Tone** 0301 112415-85-7, **Tone** 0201
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (visible-light-curable epoxy system with enhanced depth of cure)

IT 25068-38-6, **Epon** 825 25085-98-7, UVR 6110 25190-06-1, Poly(tetramethylene glycol) 68924-34-5 179607-24-0, **Epon** 828RS
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (visible-light-curable epoxy system with enhanced depth of cure)

L7 ANSWER 20 OF 46 CA COPYRIGHT 2003 ACS
 AN 125:12893 CA
 TI Expandable multilayer material useful in automobile roof ditch with good adhesion, paintability, and weatherability
 IN Johnson, Michael A.; Tumey, Michael L.; Willett, Peggy S.; George, Clayton A.; Meyer, Scott R.; Kitano, Shuichi; Ogata, Kiyoshi; Sato, Shinobu; Shinozaki, Kotaroh
 PA Minnesota Mining and Mfg. Co., USA
 SO PCT Int. Appl., 59 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C09J005-08
 ICS C08F283-10; C09J151-08
 CC 38-3 (Plastics Fabrication and Uses)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9610059	A1	19960404	WO 1995-US10843	19950825
	W: CA, JP, KR, MX				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2200975	AA	19960404	CA 1995-2200975	19950825
	EP 783550	A1	19970716	EP 1995-930285	19950825
	EP 783550	B1	19990728		
	R: DE, ES, FR, GB, IT				
	JP 10506587	T2	19980630	JP 1995-511756	19950825
	ES 2133797	T3	19990916	ES 1995-930285	19950825
PRAI	US 1994-314872		19940929		
	WO 1995-US10843		19950825		
AB	A latent, thermosettable, melt-flowable sheet material comprising at least two layers, one of which is expandable and flowable, and the other of which flows to encapsulate the expandable layer between it and a substrate to which the sheet material has been adhered. A latent, thermosettable, melt-flowable sheet material which can be cured to provide a weatherable layer is also disclosed. A method for imparting topog. or protective features to a substrate such as a metal joint of an automobile body is also disclosed. A flowable layer was formed from a compn. contg. Bu acrylate, N-vinylcaprolactam, Acryloid B-60, Eponex 1510, KB-1 photoinitiator, Irganox 1010 antioxidant, dicyandiamide, hexakisimidazole nickel phthalate, and Cab-O-Sil on a polyester release film adhered to a polyester film primed on both sides and irradiated with light. An expandable layer was formed from a compn. contg. Bu acrylate, N-vinylcaprolactam, Eponex 1510, Epon 828, KB-1, CBr4, dicyandiamide, hexakisimidazole nickel phthalate, Vazo 67, G6720, Aerosil R-972, Cab-O-Sil M5, and C15-250 glass bubbles, irradiated with light, adhered on the above bare primed side of the polyester film. The expandable layer side was adhered on an ED-11 panel, freed from the release from the other side, and heated at 177.degree. showing the top layer flowed to cover the exposed surfaces of both the polyester film and the bottom expandable layer.				
ST	acrylic epoxy expandable laminate; photocurable plastic laminate; automobile roof ditch expandable laminate				
IT	Plastics, laminated Polyesters, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (expandable multilayer material useful in automobile roof ditch with good adhesion, paintability, and weatherability)				
IT	Polyesters, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (acrylic-epoxy-, expandable multilayer material useful in automobile roof ditch with good adhesion, paintability, and weatherability)				
IT	Epoxy resins, uses RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (acrylic-polyester-, expandable multilayer material useful in automobile roof ditch with good adhesion, paintability, and weatherability)				
IT	Roofs (automotive, expandable multilayer material useful in automobile roof ditch with good adhesion, paintability, and weatherability)				
IT	Vinyl acetal polymers RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (butyrals, expandable multilayer material useful in automobile roof ditch with good adhesion, paintability, and weatherability)				
IT	Glass, oxide RL: MOA (Modifier or additive use); USES (Uses) (microspheres, expandable multilayer material useful in automobile roof ditch with good adhesion, paintability, and weatherability)				

IT 2094-98-6, Vazo 88 13472-08-7, Vazo 67
 RL: MOA (Modifier or additive use); USES (Uses)
 (blowing agent; expandable multilayer material useful in automobile
 roof ditch with good adhesion, paintability, and weatherability)

IT 167476-59-7 167476-64-4 167476-66-6 167476-67-7 167476-68-8
 167476-71-3 177656-88-1 177656-89-2 177656-90-5 177656-91-6
 177656-92-7 177656-93-8 177665-57-5
 RL: POF (Polymer in formulation); TEM (Technical or engineered material
 use); USES (Uses)
 (expandable multilayer material useful in automobile roof ditch with
 good adhesion, paintability, and weatherability)

IT 25248-42-4, **Tone** 300 149984-03-2, Dynapol S1402
 RL: TEM (Technical or engineered material use); USES (Uses)
 (expandable multilayer material useful in automobile roof ditch with
 good adhesion, paintability, and weatherability)

IT 9017-68-9, Acrylic acid-isooctyl acrylate copolymer
 RL: TEM (Technical or engineered material use); USES (Uses)
 (reinforcing film; expandable multilayer material useful in automobile
 roof ditch with good adhesion, paintability, and weatherability)

L7 ANSWER 21 OF 46 CA COPYRIGHT 2003 ACS
 AN 123:343611 CA
 TI Aqueous two-part isocyanate-free curable, polyurethane resin systems
 IN Song, Zhigiang
 PA Guertin Bros. Coatings and Sealants Ltd., Can.
 SO PCT Int. Appl., 170 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C08L075-16
 ICS C08L033-14
 CC 42-10 (Coatings, Inks, and Related Products)
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9516749	A1	19950622	WO 1994-CA680	19941213
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5567761	A	19961022	US 1994-313837	19940928
PRAI	US 1993-165643		19931213		
	US 1994-313837		19940928		
	US 1993-58240		19930510		

AB Aq. coating compns. contg.: (A) an acetoacetylated polymer; and (B) a
 polyacrylate having at least two (meth)acrylate end groups, have long pot
 lives and may be cured by the evapn. of water in the presence of a basic
 catalyst. Acrylic copolymers having pendent urethane side groups which
 are terminated with (meth)acrylate groups are water-dispersible and may be
 cured with polyfunctional crosslinking agents or by free radical
 initiators to afford coatings having excellent properties. Incorporation
 of a crosslinking component contg. epoxy groups improves the coating
 properties.

ST acetoacetate group coating isocyanate free; polyacrylate coating urethane
 isocyanate free

IT Coating materials
 (aq. two-part isocyanate-free curable, polyurethane resin systems)

IT Epoxy resins, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material
 use); USES (Uses)
 (aq. two-part isocyanate-free curable, polyurethane resin systems)

IT 56-81-5DP, 1,2,3-Propanetriol, acetoacetate urethane derivs. 115-77-5DP,
 acetoacetate urethane derivs.
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (aq. two-part isocyanate-free curable, polyurethane resin systems)

IT 818-61-1DP, reaction products with polyurethanes 822-06-0DP,
 polyurethane derivs. 4767-03-7DP, reaction products with urethane
 acrylates, polymers 25584-83-2DP, Hydroxypropyl acrylate, reaction

products with isophoronediiisocyanate trimer, polymers 25584-83-2DP, Hydroxypropyl acrylate, reaction products with polyurethanes 28574-90-5DP, polyurethane derivs. 53895-32-2DP, Isophoronediiisocyanate trimer, reaction products with hydroxyalkyl acrylates, polymers 59561-84-1DP, Diethylene glycol-isophorone diisocyanate copolymer, reaction products with hydroxyethyl acrylate 86418-36-2DP, PolyG-55-112, reaction products with urethane acrylates, polymers 87889-52-9P 101484-78-0DP, **Tone** m100, polyurethane derivs. 127115-77-9P 141365-89-1P 154435-89-9DP, Acetoacetoxyethyl methacrylate-butyl acrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer, polyurethane derivs. 170729-20-1P 170729-21-2P 170729-22-3P 170729-23-4P 170729-24-5P 170729-25-6P 170729-26-7P 170729-27-8P 170729-28-9P 171119-22-5P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (aq. two-part isocyanate-free curable, polyurethane resin systems)

IT 25068-38-6, **Epon** 828

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(aq. two-part isocyanate-free curable, polyurethane resin systems)

IT 77-99-6 105-45-3, Methyl acetoacetate

RL: RCT (Reactant); RACT (Reactant or reagent)

(aq. two-part isocyanate-free curable, polyurethane resin systems)

IT 22208-25-9, Trimethylolpropane triacetoacetate

RL: TEM (Technical or engineered material use); USES (Uses)

(aq. two-part isocyanate-free curable, polyurethane resin systems)

L7 ANSWER 22 OF 46 CA COPYRIGHT 2003 ACS

AN 123:342735 CA

TI Pressure-sensitive adhesive tapes from nonsilicone-coated polyolefin release liners

IN Meyer, Scott R.

PA Minnesota Mining and Mfg. Co., USA

SO PCT Int. Appl., 15 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C09J007-02

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9520635	A2	19950803	WO 1995-US1270	19950130
	WO 9520635	A3	19950824		
	W: CA, CN, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6228449	B1	20010508	US 1994-189314	19940131
	CA 2180434	AA	19950803	CA 1995-2180434	19950130
	EP 742814	A1	19961120	EP 1995-908758	19950130
	R: DE, ES, FR, GB, IT				
	CN 1139947	A	19970108	CN 1995-191412	19950130
	JP 09508431	T2	19970826	JP 1995-520248	19950130
	US 6348249	B2	20020219	US 2001-802243	20010308
PRAI	US 1994-189314	A	19940131		
	WO 1995-US1270	W	19950130		

AB The tapes comprise a pressure-sensitive adhesive layer consisting of acrylate polymers and a release liner comprising polyolefins (A) having d. .ltoreq.0.90 and compn. distribution breadth index >70% or laminates of A with polybutylene or butylene copolymers with comonomer content .ltoreq.5%. Thus, Exact 4006 (I; copolymer contg. butylene units and ethylene units) and polybutylene (II) were together extruded to form a release liner. I side of the liner was laminated with an adhesive layer contg. Bu acrylate (III) 80, N,N-dimethylacrylamide 20, **Epon** 828 20, **Epon** 1001 80, polycaprolactone (**Tone** P676) 5, and hexanediol diacrylate 0.05 part and II side of the liner was laminated

with an adhesive layer contg. III 60, N-vinylcaprolactam 40, Eponex 1510 80, and Acryloid B 60 80 parts to give a two-sided adhesive tape suitable for automobile roof ditch sealing applications.

ST polyolefin release liner adhesive tape; ethylene copolymer release liner adhesive tape; butylene copolymer release liner adhesive tape

IT Parting materials
(polyolefin release liners; for pressure-sensitive adhesive tapes)

IT Automobiles
(two-sided adhesive tapes for roof ditch sealing for)

IT Alkenes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polymers, release liners; for pressure-sensitive adhesive tapes)

IT Adhesive tapes
(pressure-sensitive, nonsilicone-coated polyolefin release liners for)

IT 170574-39-7 170574-40-0
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesive; for pressure-sensitive adhesive tapes based on nonsilicone-coated release liners)

IT 9003-28-5, Duraflex 200 25087-34-7, Exact 4006 156798-97-9, Exact 4003 163442-27-1, Exact 3022
RL: TEM (Technical or engineered material use); USES (Uses)
(release liner; for pressure-sensitive adhesive tapes)

L7 ANSWER 23 OF 46 CA COPYRIGHT 2003 ACS

AN 123:129601 CA

TI Via and through hole filling composition and method, circuit carrier, and formation of a resistor

IN Arldt, Roy Lynn; Boyko, Christina Marie; Cayson, Burtran Joe; Kozlowski, Richard Michael; Kulesza, Joseph Duane; Lauffer, John Matthew; Liu, Philip Chihchau; Markovich, Voya Rista; Mahmoud, Issa Said; et al.

PA International Business Machines Corp., USA

SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW

DT Patent

LA English

IC ICM H05K003-40
ICS H05K001-09; H01B001-20

CC 76-2 (Electric Phenomena)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 653904	A2	19950517	EP 1994-117078	19941028
	EP 653904	A3	19961218		
	EP 653904	B1	20021211		
	R: DE, FR, GB				
	US 5766670	A	19980616	US 1993-154341	19931117
	EP 609774	A1	19940810	EP 1994-101191	19940127
	EP 609774	B1	19970409		
	R: DE, FR, GB				
	JP 06349974	A2	19941222	JP 1994-27291	19940131
	US 5450290	A	19950912	US 1994-195532	19940214
	JP 07188391	A2	19950725	JP 1994-231249	19940927
	EP 1233663	A2	20020821	EP 2002-9112	19941028
	EP 1233663	A3	20020828		
	R: DE, FR, GB				
	US 5571593	A	19961105	US 1995-467558	19950606
	US 6194024	B1	20010227	US 1995-469449	19950606
	US 2001007289	A1	20010712	US 2001-778702	20010207
PRAI	US 1993-154341	A	19931117		
	US 1993-12111		19930201		
	EP 1994-117078	A3	19941028		
	US 1998-47984	A3	19980325		
AB	The present invention permits solder joints to be made directly to via and through holes without the solder being wicked into the vias or through holes, by filling plated through holes with an epoxy or cyanate fill				

compn. When cured and overplated, the fill compn. provides support for the solder joint and provides a flat solderable surface for the interconnection. In certain embodiments, the cured fill compns. offer a further advantage of being conductive. The invention also relates to several novel methods for filling through holes with such fill compns., and to resistors located in through holes and vias. The fill compn. contains 5-65 wt.% binder comprising cycloaliph. epoxy resin, novolak epoxy resin, and/or cyanate ester resin, a curing agent, and a catalyst; and 35-95 wt.% conductive powder.

ST via filling compn circuit carrier; epoxy resin compn via filling; cyanate ester resin compn via filling

IT Electric resistors
(formation of resistors in through holes and vias)

IT Carbon black, processes
Epoxy resins, processes
Polycyanurates
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(via and through hole filling compn. contg.)

IT Solders
(via and through hole filling compn. for use with solder balls)

IT Epoxy resins, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(alicyclic, via and through hole filling compn. contg.)

IT Phenolic resins, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(epoxy, novolak, via and through hole filling compn. contg.)

IT Rubber, butadiene, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(hydroxy-terminated, epoxidized, via and through hole filling compn. contg.)

IT Electric conductors
(interconnections, via and through hole filling compn.)

IT Epoxy resins, processes
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(phenolic, novolak, via and through hole filling compn. contg.)

IT Electric circuits
(printed, boards, via and through hole filling compn. for)

IT 557-09-5, Zinc octanoate 6535-19-9, Manganese octanoate
RL: CAT (Catalyst use); USES (Uses)
(catalyst; via and through hole filling compn. contg.)

IT 9003-17-2
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(rubber, hydroxy-terminated, epoxidized, via and through hole filling compn. contg.)

IT 79-94-7, Tetrabromobisphenol A 85-42-7 931-36-2, 2-Ethyl-4-methylimidazole 2530-83-8, Z 6040 7440-44-0, Carbon, processes 7440-50-8, Copper, processes 25068-38-6, **Epon** 828 25085-98-7, ERL 4221 25085-99-8, Bisphenol A diglycidyl ether polymer 25550-51-0, Methyl hexahydrophthalic anhydride 47073-92-7, AroCy L 10 63992-68-7, ECN 1280 117413-18-0 127667-44-1, RTX 366 132692-49-0, Bisphenol M dicyanate homopolymer 132773-65-0 166515-87-3, Ciba-Geigy 8212 166516-57-0, **Tone** 0231
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(via and through hole filling compn. contg.)

L7 ANSWER 24 OF 46 CA COPYRIGHT 2003 ACS
AN 122:293526 CA
TI Crosslinked microgel for cathodic electrocoating compositions

IN Uhlianuk, Peter W.; Van Ham, Raymond S.
 PA du Pont de Nemours, E. I., and Co., USA
 SO U.S., 6 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C08G059-50
 ICS C08L063-00; C25D013-06
 NCL 523404000
 CC 42-9 (Coatings, Inks, and Related Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5362772	A	19941108	US 1993-89005	19930709
	CA 2166604	AA	19950119	CA 1994-2166604	19940711
	WO 9502015	A1	19950119	WO 1994-US7702	19940711
	W: BR, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 707615	A1	19960424	EP 1994-922118	19940711
	R: BE, DE, FR, GB				
	BR 9407191	A	19960730	BR 1994-7191	19940711
	JP 09504559	T2	19970506	JP 1995-504191	19940711
PRAI	US 1993-89005	A	19930709		
	WO 1994-US7702	W	19940711		
AB	Cationic finely divided polymeric microgels having a particle size of about 0.01-6 .mu.m dispersed in an aq. medium for use in aq. cationic electrocoating compns. consist essentially of a product produced by reacting an epoxy terminated poly epoxy hydroxy ether resin, a ketimine, a primary, secondary amine or mixts. thereof and amino silane to provide a resin having silanol groups and amino groups when in an aq. medium. The amino groups are neutralized with an org. acid to form cationic groups for water dispersibility and the silanol groups are condensed with hydroxy groups of the resin and other silanol groups of the resin to form a crosslinked microgel.				
ST	crosslinked microgel cathodic electrocoating; epoxy microgel electrodeposit				
IT	Electrodeposits and Electroplates				
	Razor blades				
	(crosslinked microgel for cathodic electrocoating compns.)				
IT	Amines, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(reaction products with epoxy resins and ketimines and aminosilanes; crosslinked microgel for cathodic electrocoating compns.)				
IT	Epoxy resins, uses				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(reaction products with ketimines and amines and aminosilanes; crosslinked microgel for cathodic electrocoating compns.)				
IT	Imines				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(ket-, reaction products with epoxy resins and amines and aminosilanes; crosslinked microgel for cathodic electrocoating compns.)				
IT	109-83-1D, Methylethanol amine, reaction products with epoxy resins and ketimines and aminosilanes 919-30-2D, .gamma.-Aminopropyl triethoxy silane, reaction products with epoxy resins and ketimines and amines 10595-60-5D, reaction products with epoxy resins and amines and aminosilanes 25068-38-6D, Epon 828, reaction products with ketimines and amines and aminosilanes 50327-24-7D, Tone 200, reaction products with epoxy resins and ketimines and amines and aminosilanes				
	RL: TEM (Technical or engineered material use); USES (Uses)				
	(crosslinked microgel for cathodic electrocoating compns.)				
IT	77-99-6D, Trimethylolpropane, reaction products with toluene diisocyanate 26471-62-5D, Toluene diisocyanate, reaction products with trimethylolpropane				
	RL: MOA (Modifier or additive use); USES (Uses)				

(crosslinker; crosslinked microgel for cathodic electrocoating comps.)
IT 13598-78-2, Aminosilane
RL: TEM (Technical or engineered material use); USES (Uses)
(reaction products with epoxy resins and ketimines and amines;
crosslinked microgel for cathodic electrocoating comps.)

L7 ANSWER 25 OF 46 CA COPYRIGHT 2003 ACS

AN 121:232271 CA

TI Hydrophobic bisphenol A epoxy isocyanate-based polymers for cationic
pigment dispersion resins for electric spark coatings

IN Kawakami, Ichiro; Kageyama, Hiroyuki; Nojiri, Hiroyuki

PA Nippon Paint Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G059-14

ICA C09C003-10; C09D005-44; C09D017-00

CC 37-3 (Plastics Manufacture and Processing)

Section cross-reference(s): 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06128351	A2	19940510	JP 1992-279764	19921019
	US 5401782	A	19950328	US 1993-136372	19931015
PRAI	JP 1992-279764		19921019		

AB The polymers are prepd. by the reaction of bisphenol A epoxy resin and half blocked isocyanate and then sulfonated, where the resins have epoxy equiv. wt. 180-1000, SP (soly. parameter) value 10.0-11.0, and sulfonation conversion 70-90%. A vanish was prepd. by mixing a reaction of IPDI and 2-ethylhexanol (I) in Me isobutylketone with dibutyltin laurate to form I half-blocked IPDI, **Epon** 828, bisphenol A, and solvents, and sulfonated where the vanish is mixed with pigment to give a pigment-dispersed paste (A). A spark coating comps. from A, a reaction product of HMD diisocyanurate and MEK oxime, a reaction product of **Tone** 200 (polycaprolactone diol), Epikote 1001, and diethylenetriamine showed good storage stability and good pigment dispersion.

ST sulfonated epoxy isocyanate cationic coating; pigment dispersion
sulfonated epoxy coating; elec spark coating epoxy isocyanate; bisphenol A
epoxy coating storage stable; isocyanurate epoxy elec spark coating

IT Electrodeposits and Electroplates

Pigments

Polymerization

(hydrophobic bisphenol A epoxy isocyanate-based polymers for cationic
pigment dispersion resins for elec. spark coatings)

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(isocyanate group-contg., sulfonated; hydrophobic bisphenol A epoxy
isocyanate-based polymers for cationic pigment dispersion resins for
elec. spark coatings)

IT Coating process

(spark, hydrophobic bisphenol A epoxy isocyanate-based polymers for
cationic pigment dispersion resins for elec. spark coatings)

IT Coating materials

(storage-stable, hydrophobic bisphenol A epoxy isocyanate-based
polymers for cationic pigment dispersion resins for elec. spark
coatings)

IT 80-05-7D, Bisphenol A, reaction products with bisphenol A epoxy
isocyanate-based polymers 96-29-7D, reaction products with HMD
diisocyanurate, epoxy resin, polycaprolactone and half blocked isocyanate
epoxy resins 104-76-7D, 2-Ethylhexanol, half blocked with isocyanates,
reaction products with bisphenol A epoxy 111-40-0D, Diethylenetriamine,
reaction products with epoxy resin, polycaprolactone and half blocked
isocyanate epoxy resins 112-53-8D, Lauryl alcohol, half blocked with

isocyanates, reaction products with bisphenol A epoxy 434-07-1D, HMD, derivs., reaction products with MEK oxime, epoxy resin, polycaprolactone and half blocked isocyanate epoxy resins 4098-71-9D, IPDI, 2-ethylhexanol half blocked, reaction products with bisphenol A epoxy 25068-38-6D, **Epon** 828, reaction products with bisphenol A epoxy isocyanate-based polymers 25068-38-6D, Epikote 1001, reaction products with polycaprolactone and half blocked isocyanate epoxy resins 25154-52-3D, Nonyl phenol, reaction products with bisphenol A epoxy isocyanate-based polymers 26471-62-5D, TDI, 2-ethylhexanol half blocked, reaction products with bisphenol A epoxy 50327-24-7D, **Tone** 200, reaction products with epoxy resin and half blocked isocyanate epoxy resins

RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)

(hydrophobic bisphenol A epoxy isocyanate-based polymers for cationic pigment dispersion resins for elec. spark coatings)

L7 ANSWER 26 OF 46 CA COPYRIGHT 2003 ACS
 AN 119:10527 CA
 TI Cationic electrophoretic coating compositions
 IN Murase, Kunio; Tanaka, Hideto
 PA Nippon Paint Co Ltd, Japan
 SO Jpn. Kokai Tokkyo Koho, 6 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C09D005-44
 CC 42-9 (Coatings, Inks, and Related Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04320465	A2	19921111	JP 1991-88891	19910420
	JP 2859460	B2	19990217		
PRAI	JP 1991-88891		19910420		

AB The title compns., giving coatings with good smoothness and thermal stability, comprise 100 parts (solids) resins and 1-80 parts low-oil-absorbing SiO₂ pigments with oil absorption .ltoreq.80 parts/100 parts pigment, av. diam. .ltoreq.10 m.mu., and water-sol. content .ltoreq.1.0 part. Thus, stirring 320 parts 2-ethylhexanol-TDI (1:1) adduct (I) with 87.2 parts dimethylethanolamine at 80.degree. for 1 h and treating with 117.6 parts lactic acid gave a quaternizing agent. Then, 710.0 parts **Epon** 829 and 289.6 parts bisphenol A were heated at 150-160.degree., treated with 406.4 parts I at 110-120.degree., and stirred with 496.3 parts quaternizing agent at 80-85.degree. to give a vehicle. Sep., 970 parts Epikote 1001 and 265 parts **TONE** 0200 were heated in presence of PhCH₂NHMe and stirred with diethylenetriamine Me iso-Bu diketimine to give a polyether (II). A mixt. of 291 parts TDI and 218 parts 2-ethylhexanol was stirred at 38.degree. for 0.5 h and treated with 75 parts trimethylolpropane to give a crosslinking agent (III). A 20%-solids aq. compn. contg. II 576, III 310, ethylene glycol monohexyl ether 35.5, AcOH 12.3, and pigment paste [prepd. from 30%-solids vehicle 1666.7, carbon black 81, SiO₂ (oil absorption 44, av. diam. 1.6 .mu.m) 791.8, Pb silicate 67.2, dibutyltin oxide 60, and H₂O 217.9 parts] 313 parts was applied on an SPC steel sheet at 200 V for 3 min and baked at 180.degree. for 20 min to form a coating with surface roughness 0.35 .mu.m.

ST cationic electrophoretic coating pigment silica; smoothness coating
 IT electrophoretic pigment silica
 IT Electrodeposits and Electroplates
 (contg. silica pigments, with good storage stability and smoothness)
 IT Polyesters, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (epoxy, coatings, electrophoretic, contg. silica pigments, with good storage stability and smoothness)
 IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
 (polyester-, coatings, electrophoretic, contg. silica pigments, with
 good storage stability and smoothness)

IT 77-99-6D, Trimethylolpropane, reaction products with TDI and ethylhexanol
 104-76-7D, 2-Ethylhexanol, reaction products with TDI and
 trimethylolpropane 26471-62-5D, TDI, reaction products with ethylhexanol
 and trimethylolpropane
 RL: USES (Uses)
 (crosslinked agents, for aminated epoxy resins, in cationic
 electrophoretic coatings)

IT 7631-86-9, Silica, uses
 RL: USES (Uses)
 (pigments, cationic electrophoretic epoxy resin coatings contg., with
 good smoothness and storage stability)

IT 86889-77-2DP, aminated
 RL: PREP (Preparation)
 (polyurethane-crosslinked, prepn. of, coating, electrophoretic, with
 good smoothness and storage stability)

IT 80-05-7DP, Bisphenol A, quaternized epoxy resin derivs. 108-01-0DP,
 Dimethylethanolamine, quaternized epoxy resin derivs. 25068-38-6DP,
Epon 829, quaternized epoxy resin derivs. 54634-94-5DP,
 quaternized epoxy resin derivs.
 RL: PREP (Preparation)
 (prepn. of, in electrophoretic epoxy resin coatings)

L7 ANSWER 27 OF 46 CA COPYRIGHT 2003 ACS
 AN 118:193712 CA
 TI Corrosion inhibition coating of steel
 IN Hiramatsu, Isamu; Inoue, Kyoichi; Nakagawa, Mineo; Ueda, Akiyuki; Tanaka,
 Masatoshi
 PA Nippon Paint Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C23F011-00
 ICS C09D005-44; C25D013-00
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04143287	A2	19920518	JP 1990-267376	19901003
PRAI	JP 1990-267376		19901003		
AB	Steel is coated with anode-active heat-resistant primers contg. vehicle resins having ignition loss <33%, dried, coated with cationic electrodeposition coating materials. Thus, a primer contained hydrolyzed (EtO)4Si (15% SiO2) 40, 15% colloidal silica 10, Zn powder 30, calcined clay 24.5, and a antiflagging agent 0.5 parts, and a cationic electrodeposition coating material contained Tone 0200-extended polyether 576, a TDI-2-ethylhexanol-trimethylolpropane reaction product (70.1% solids) 310, ethylene glycol monohexyl ether 71, AcOH 12.3, a pigment paste 313, and H2O 3158.5 parts.				
ST	corrosion resistance coating steel; primer cationic electrodeposition coating steel				
IT	Electrodeposits and Electroplates (corrosion-resistant, contg. polycaprolactonediol-extended polyether and polyurethanes)				
IT	Urethane polymers, uses RL: MOA (Modifier or additive use); USES (Uses) (crosslinking agents, for cationic electrodeposition coating materials contg. polycaprolactonediol-extended polyethers, on steel)				
IT	Epoxy resins, uses RL: USES (Uses) (pigment paste contg., for cationic electrodeposition coating materials)				

on steel)

IT Crosslinking agents
(polyurethanes, for cationic electrodeposition coating materials contg. polycaprolactonediol-extended polyethers, on steel)

IT Polymerization
(hydrolytic, of alkoxysilanes, for primers, contg. colloidal silica, on steel, for cationic electrodeposition)

IT Coating materials
(primers, contg. hydrolyzed alkoxysilanes and colloidal silica, on steel, for cationic electrodeposition coating)

IT 7631-86-9, Silica, uses
RL: USES (Uses)
(colloidal, primers, contg. hydrolyzed alkoxysilanes, on steel, for cationic electrodeposition)

IT 77-99-6D, reaction products with ethylhexanol and toluene diisocyanate
104-76-7D, 2-Ethylhexanol, reaction products with toluene diisocyanate and trimethylolpropane 26471-62-5D, TDI, reaction products with ethylhexanol and trimethylolpropane
RL: USES (Uses)
(electrodeposition coating materials, contg. polycaprolactone diol-extended polyethers, on steel, corrosion-resistant)

IT 79-10-7D, 2-Propenoic acid, reaction products with dimethylamine and epoxidized polybutadiene 124-40-3D, reaction products with acrylic acid and epoxidized polybutadiene 9003-17-2D, Polybutadiene, epoxidized, reaction products with acrylic acid and dimethylamine 55818-57-0, Epikote 1004 acrylate
RL: USES (Uses)
(electrodeposition coatings contg., on steel, corrosion-resistant)

IT 25068-38-6D, Epikote 1001, reaction products with polycaprolactonediol 50327-24-7D, **Tone** 0200, reaction products with epoxy resins
RL: USES (Uses)
(electrodeposition coatings, contg. polyurethanes, on steel, corrosion-resistant)

IT 78-10-4, Tetraethoxysilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolytic polymn. of, for primers, contg. silica, on steel, for cationic electrodeposition)

IT 2768-02-7, Vinyltrimethoxysilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolytic polymn. of, with triethoxysilane, for primers, contg. silica, on steel, for cationic electrodeposition)

IT 50-21-5D, reaction products with diethanolamine and ethylhexanol-half-capped TDI 25068-38-6, **Epon** 829 54634-94-5D, reaction products with diethanolamine and lactic acid
RL: USES (Uses)
(pigment paste contg., for cationic electrodeposition coating materials on steel)

IT 12597-69-2, Steel, miscellaneous
RL: MSC (Miscellaneous)
(primers and cationic electrodeposition coating materials for, corrosion-resistant)

L7 ANSWER 28 OF 46 CA COPYRIGHT 2003 ACS

AN 117:152884 CA

TI Cathodic electrodeposition coatings containing alkylmetal acetate catalyst

IN Chung, Ding Y.; Debroy, Tapan K.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 4 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08L063-02

ICS C08F283-10

NCL 525528000

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5116914	A	19920526	US 1990-629475	19901218
	WO 9211325	A1	19920709	WO 1991-US9148	19911212
	W: AU, BR, CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	AU 9191171	A1	19920722	AU 1991-91171	19911212
PRAI	US 1990-629475		19901218		
	WO 1991-US9148		19911212		
AB	Title coatings with good solvent resistance contain blocked polyisocyanates and epoxy-amine adducts. A compn. contg. dibutyltin diacetylacetonate, Mondur TD 80, and an adduct of methylethanolamine, dimethylbenzylamine, Epon 828 , bisphenol A, and Tone 200 was baked at 182-200.degree. to give a film having good resistance to MIBK and MEK.				
ST	solvent resistance epoxy urethane coating; crosslinking catalyst epoxy urethane coating; electrophoretic epoxy urethane coating catalyst; tin catalyst cathodic coating				
IT	Crosslinking catalysts (dialkyltin diacetylacetonates, for cataphoretic epoxy-polyurethane coatings)				
IT	Urethane polymers, uses RL: TEM (Technical or engineered material use); USES (Uses) (epoxy, coatings, cataphoretic, catalysts for, dialkyltin diacetylacetonates as)				
IT	Epoxy resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (polyurethane-, coatings, cataphoretic, catalysts for, dialkyltin diacetylacetonates as)				
IT	Coating materials (solvent-resistant, epoxy-polyurethanes, catalysts for, dialkyltin diacetylacetonates as)				
IT	22673-19-4 RL: CAT (Catalyst use); USES (Uses) (catalysts, for cathodic coatings contg. isocyanates and epoxy-amine adducts)				
IT	103-83-3D, Dimethylbenzylamine, reaction products with epoxy resins, diamines, diols, and TDI, salts with lactic acid 109-83-1D, reaction products with epoxy resins, diamines, diols, and TDI, salts with lactic acid 143559-73-3D, reaction products with amines, salts with lactic acid RL: TEM (Technical or engineered material use); USES (Uses) (coatings, contg. dibutyltin acetylacetonate catalyst, solvent-resistant)				
IT	123-54-6, 2,4-Pentanedione, reactions RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with dibutyltin oxide)				
IT	818-08-6, Dibutyl tin oxide RL: RCT (Reactant); RACT (Reactant or reagent) (condensation of, with diketone)				
L7	ANSWER 29 OF 46 CA COPYRIGHT 2003 ACS				
AN	117:113498 CA				
TI	Meltblown nonwoven webs made from epoxy/polycaprolactone blends				
IN	Onwumere, Fidelis C.				
PA	Kimberly-Clark Corp., USA				
SO	U.S., 10 pp. CODEN: USXXAM				
DT	Patent				
LA	English				
IC	ICM D01D005-12 ICS D04H001-72; D06M011-59; D06M013-332; D06M101-00				
NCL	008115550				
CC	40-10 (Textiles and Fibers)				

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5100435	A	19920331	US 1990-622258	19901204
	CA 2054158	AA	19920605	CA 1991-2054158	19911024
PRAI	US 1990-622258		19901204		

AB A process for meltblowing an epoxy resin comprises forming a molten blend of .gtoreq.1 epoxy resin and .gtoreq.1 polycaprolactone (PCL) component which is composed of .gtoreq.1 polycaprolactone polymer, extruding to form filaments, alternating the filaments with flowing heated gas so as to produce fibers whose cross-sectional dimensions are less than the cross-sectional dimensions of the orifices, and collecting the fibers in the form of a nonwoven web. A 60:40 mixt. **Epon** 1009F (epoxy resin) and **Tone** P-700 (PCL) was melt blended, extruded, cut to pellets, the pellets extruded at 98-100.degree. through orifices of 0.41 mm, alternated by a hot air stream and collected on a wire screen. The mixt. extruded successfully, did not suffer from premature crosslinking, and the nonwoven fabric had good flexibility and elongation and was not glassy.

ST epoxy resin polycaprolactone fiber web

IT Crosslinking agents

(amines, for epoxy resin-polycaprolactone fibers)

IT Epoxy resins, uses

RL: USES (Uses)

(fibers, contg. caprolactone polymers, melt blown nonwoven webs from)

IT Polyester fibers, uses

RL: USES (Uses)

(caprolactone, contg. epoxy resins, nonwoven melt blown webs from)

IT Amines, uses

RL: USES (Uses)

(di-, curing agents, for epoxy resin-polycaprolactone fibers)

IT Synthetic fibers, polymeric

RL: USES (Uses)

(epoxy resins, caprolactone polymer contg., nonwoven melt blown webs from)

IT Epoxy resins, uses

RL: USES (Uses)

(fiber, caprolactone polymer contg., nonwoven melt blown webs from)

IT Amines, uses

RL: USES (Uses)

(poly-, curing agents, for epoxy resin-polycaprolactone fibers)

IT 4097-89-6 7664-41-7, Ammonia, uses

RL: USES (Uses)

(curing agents, for epoxy resin-caprolactone polymer melt blown nonwoven fiber webs)

IT 502-44-3D, Caprolactone, polymers 143180-36-3, **Tone** P 700

RL: USES (Uses)

(fiber, contg. epoxy resins, melt blown nonwoven webs from)

IT 25068-38-6, **Epon** 1009F

RL: USES (Uses)

(fibers, contg. caprolactone polymers, meltblown nonwoven webs from)

L7 ANSWER 30 OF 46 CA COPYRIGHT 2003 ACS

AN 116:176242 CA

TI Method of incorporating polyamine into a cationic resin

IN Debroy, Tapan K.; Chung, Ding Y.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C25D013-00

NCL 204181700

CC 42-7 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5089100	A	19920218	US 1990-563837	19900806
	CA 2088259	AA	19920207	CA 1991-2088259	19910801
	WO 9202588	A1	19920220	WO 1991-US5327	19910801
	W: AU, BR, CA, JP, KR				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	AU 9184200	A1	19920302	AU 1991-84200	19910801
	AU 640591	B2	19930826		
	EP 542827	A1	19930526	EP 1991-914338	19910801
	R: BE, DE, ES, FR, GB, IT, SE				
	BR 9106735	A	19930713	BR 1991-6735	19910801
	JP 05508681	T2	19931202	JP 1991-513747	19910801
PRAI	US 1990-563837		19900806		
	WO 1991-US5327		19910801		
AB	Electrodeposition coatings contain blocked polyisocyanates and water-sol. epoxy-amine adduct prep. by reacting epoxy resins with secondary amines, further reacting with polyamines H ₂ NR(NRH)nNH ₂ (R = C ₂ -6 alkylene, n = 0-4) at .gtoreq.1 epoxy equiv/mol polyamine. Thus, an aq. mixt. of a pigment paste and an emulsion of lactic acid, Dowanol PPH, surfactant, H ₂ O, 3:1 TDI-trimethylolpropane adduct, and Epon 828-Tone 200 (polycaprolactone)-bisphenol A-methylethanolamine-1,3-diaminopentane reaction product was cathodically deposited on a phosphated steel panel at 250 V for 2 min and 83 .degree.F and cured at 360.degree.F for 15 min to give a smooth film.				
ST	epoxy alkanolamine adduct polyamine nongelling; electrodeposition epoxy amine coating				
IT	Electrodeposits and Electroplates (epoxy-amine/polyamine adduct, manuf. of, with high pH and stability in bath)				
IT	Epoxy resins, compounds RL: USES (Uses) (reaction products, with amine/polyamines, for binders for cathodic coating)				
IT	80-05-7DP, reaction product with Epon 828 and/or polycaprolactone and secondary amines and polyamines and polyisocyanates 109-83-1DP, Methylethanolamine, reaction product with bisphenol A and epoxy resin and/or polycaprolactone and polyamine and polyisocyanate 111-40-0DP, reaction product with bisphenol A and epoxy resin and/or polycaprolactone and monoamine and polyisocyanate 589-37-7DP, 1,3-Diaminopentane, reaction product with bisphenol A and epoxy resin and/or polycaprolactone and monoamine and polyisocyanate 25068-38-6DP, Epon 828 , reaction product with bisphenol A and/or polycaprolactone and secondary amines and polyamines and polyisocyanates 50327-24-7DP, Tone 200 , reaction product with bisphenol A and epoxy resin and secondary amine and polyamine and polyisocyanate RL: PREP (Preparation) (electrodeposition coatings, prepn. of)				
L7	ANSWER 31 OF 46 CA COPYRIGHT 2003 ACS				
AN	116:175427 CA				
TI	Radiation-curable monoethylenically unsaturated metal salt-containing liquid compositions				
IN	Murphy, Edward J.; Krajewski, John J.				
PA	Stamicarbon B. V., Neth.				
SO	PCT Int. Appl., 38 pp. CODEN: PIXXD2				
DT	Patent				
LA	English				
IC	ICM C08F020-04 ICS C08F002-48; B29C041-00				
CC	37-6 (Plastics Manufacture and Processing) Section cross-reference(s): 55, 56				
FAN.CNT	1				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI WO 9113919 A1 19910919 WO 1991-NL37 19910308
W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, PL,
RO, SD, SU, US
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, GR, IT,
LU, ML, MR, NL, SE, SN, TD, TG

AU 9174696 A1 19911010 AU 1991-74696 19910308
JP 05505836 T2 19930826 JP 1991-505873 19910308

PRAI US 1990-490734 19900308
US 1990-511228 19900419
WO 1991-NL37 19910308

AB Title compns. are useful in optical fabrication of patterns, for use in investment casting, with good green strength and low mold distortion at good cure rate and conversion. Thus, 92 parts carboxyethyl acrylate (I) and 8 parts Mg(OH)₂ were mixed to give a compn., where apprx.40% of the acid groups of I are neutralized. Addn. of 3.5, 7, 14, and 28% this compn. to a mixt. contg. Ebecryl 3700 (unsatd. diester of **Epon** 828) 45, N-vinylpyrrolidone 40, and GPTA (glycerylpropoxy triacrylate) 15 parts gave a liq. that exhibited better conversion, green strength, and cure rate in const. dose and const. sample thickness tests using visible and UV lasers than when SR-9003 (neopentyl glycol propoxy diacrylate) was used instead of the above-prepd. salt compn.

ST photocurable magnesium carboxyethyl acrylate compn; epoxy unsatd photocurable compn; vinylpyrrolidone compn photocurable; glyceryl propoxy triacrylate photocurable compn; investment casting photocured pattern

IT Casting process
(investment, patterns for, photocurable liq. compns. contg. ethylenically unsatd. metal salts for)

IT 123615-06-5P 140133-66-0P 140133-67-1P
RL: PREP (Preparation)
(manuf. of, for photocurable liq. compns. for patterns for investment casting)

IT 140133-65-9P
RL: PREP (Preparation)
(manuf. of, for radiation-curable liq. compns. for patterns for investment casting)

IT 4098-71-9D, reaction products with cyclohexanol and hydroxy-functional caprolactone ester of acrylic acid
RL: USES (Uses)
(photocurable liq. compns. contg. ethylenically unsatd. metal salt and, for patterns for investment casting)

IT 88-12-0, uses 25068-38-6D, **Epon** 828, unsatd. diesters 55127-80-5, Ebecryl 3700 120993-81-9, GPTA
RL: USES (Uses)
(photocurable liq. compns. contg. ethylenically unsatd. metal salts and, for patterns for investment casting)

IT 79-10-7D, 2-Propenoic acid, reaction products with caprolactone and cyclohexanol and isophorone diisocyanate 79-41-4, uses 108-93-0D, Cyclohexanol, reaction products with hydroxy-functional caprolactone ester of acrylic acid and isophorone diisocyanate 502-44-3D, Caprolactone, reaction products with acrylic acid and cyclohexanol and isophorone diisocyanate 2235-00-9, Vinyl caprolactam 9003-39-8, Poly(vinylpyrrolidone) 25852-37-3 48145-04-6, Phenoxyethyl acrylate 101484-78-0D, **Tone** M-100, reaction products with cyclohexanol and isophorone diisocyanate 140206-60-6, DeSoto 4259-118
RL: USES (Uses)
(photocurable liq. compns. contg. ethylenically unsatd. metal salts, for patterns for investment casting)

IT 58229-85-9, Acryloid B 44
RL: USES (Uses)
(photocurable liq. compns. contg., ethylenically unsatd. metal salts, for patterns for investment casting)

L7 ANSWER 32 OF 46 CA COPYRIGHT 2003 ACS
AN 116:131285 CA

TI Cationic resin composition with reduced emissions during baking
 IN DeBroy, Tapan K.; Chung, Ding Y.
 PA du Pont de Nemours, E. I., and Co., USA
 SO U.S., 7 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C08F265-10
 NCL 525296000
 CC 42-9 (Coatings, Inks, and Related Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5070149	A	19911203	US 1990-509412	19900409
	CA 2046731	AA	19930111	CA 1991-2046731	19910710
PRAI	US 1990-509412		19900409		

AB The title compn. with reduced yellowing comprises an epoxy resin-amine adduct and a diol-modified MDI crosslinker which is blocked with a mixt. of various alcs. Reacting **Epon** 828 1394.8, bisphenol A 527.2, and **Tone** 200 395.6 parts in 101.2 parts xylene and 2.4 parts dimethylbenzylamine, heating 1 h at 120.degree. with 153.2 parts diketimine (from diethylenetriamine and MIBK) and 118.2 parts methylethanolamine, and dilg. with 698.5 parts MIBK gave a backbone resin contg. 75% nonvolatiles. Adding 162.0 parts Dowanol DB to a mixt. of Isonate 181 910.0, Bu2Sn dilaurate 0.15, MIBK 527.5, and BuOH 296.0 parts at 100.degree. and adding 58.6 parts BuOH gave a crosslinker mixt. contg. 70.0% nonvolatiles. An emulsion contg. the backbone resin, the crosslinker soln., H2O, and pigment paste was electrocoated onto a zinc phosphated steel panel at 250 V and 88.degree. F for 2 min and cured at 360.degree. F for 17 min giving a 0.87-mil film with very good smoothness.

ST cationic electrodepositing paint epoxy resin; crosslinker modified MDI epoxy resin; smoothness epoxy cationic electrodepositing paint; nonyellowing epoxy resin electrodepositing paint

IT Crosslinking agents
 (MDI, diol-modified, alc.-blocked, for epoxy electrodepositing paints, for improved surface smoothness)

IT Epoxy resins, uses
 RL: USES (Uses)
 (coating materials, electrodepositing, crosslinkers for, for improved smoothness)

IT Electrodeposits and Electroplates
 (epoxy resins, crosslinkers for, alc.-blocked modified MDI as, for improved smoothness)

IT Alcohols, compounds
 RL: USES (Uses)
 (alkoxy, reaction products, with diol-modified MDI, crosslinkers, for epoxy electrodepositing paints, for improved surface smoothness)

IT Alcohols, compounds
 RL: USES (Uses)
 (reaction products, with diol-modified MDI, crosslinkers, for epoxy electrodepositing paints, for improved surface smoothness)

IT 64-17-5D, Ethanol, diol-modified MDI blocked with 67-56-1D, Methanol, diol-modified MDI blocked with 71-36-3D, Butanol, diol-modified MDI blocked with 112-25-4D, Hexyl Cellosolve, diol-modified MDI blocked with 112-34-5D, Dowanol DB, diol-modified MDI blocked with 59952-43-1D, Mondur PF, blocked with lower alcs. and glycol monoethers 67351-89-7D, Isonate 181, blocked with lower alcs. and glycol monoethers

RL: USES (Uses)
 (crosslinkers, for cationic epoxy electrodepositing paints, for improved surface smoothness)

IT 109-83-1D, Methylethanolamine, reaction products with epoxy resins 86889-77-2D, reaction products with methylethanolamine 139611-97-5
 RL: USES (Uses)
 (electrodepositing paints, cationic, contg. alc.-blocked diol-MDI adduct, for improved surface smoothness)

L7 ANSWER 33 OF 46 CA COPYRIGHT 2003 ACS
 AN 116:22967 CA
 TI Hydroxy-terminated polyester adhesion promotor in cathodic electrocoat
 baths
 IN Debroy, Tapan Kumar; Chung, Ding Yu; Deschner, Craig Robert
 PA du Pont de Nemours, E. I., and Co., USA
 SO Eur. Pat. Appl., 15 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C09D005-44
 ICS C09D163-00; C25D013-10
 CC 42-5 (Coatings, Inks, and Related Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 443605	A1	19910828	EP 1991-102627	19910222
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	US 5074978	A	19911224	US 1990-483837	19900223
	CA 2036450	AA	19910824	CA 1991-2036450	19910215
	JP 04216879	A2	19920806	JP 1991-48696	19910222
PRAI	US 1990-483837		19900223		
AB	Cathodic coatings with excellent film build, chip resistance, and adhesion contain low mol. wt. OH-terminal polyesters (mol. wt. 200-1000) in addn. to the usual binders, crosslinkers, and pigments. An electrocoat compn. contg. (a) 1622.5 parts emulsion based on Epon 828-bisphenol A-Tone 200 copolymer-amine adduct, 2-ethylhexanol-blocked trimethylalpropane-TDI copolymer crosslinker, hexyl Cellosolve, surfactant, K Flex 188 (OH-terminal polyester), HOAc, and H2O, (b) 1929.5 parts H2O, and (c) 488 parts pigment paste contg. resin, H2O, TiO2, Al silicate, (black, PbCrO3, Pb silicate, Bu2SnO was coated on Zn phosphated cold rolled steel panels at 225 V 2 min and cured at 360 .degree.F for 17 min to give a very smooth film.				
ST	hydroxyl terminal polyester additive coating; adhesion promoter polyester cathodic coating; epoxy polyester amine coating adhesion				
IT	Electrodeposits and Electroplates (chip-resistant, epoxy-amine, adhesion promoters for, hydroxy-terminated low mol. wt. polyesters as)				
IT	27193-25-5D, Cyclohexanedimethanol, hydroxy-terminated polyester derivs. 104075-00-5, K-Flex 148 104075-01-6, K-Flex 188 RL: USES (Uses) (adhesion promoter, for epoxy-amine electrocoating bath)				
IT	109-83-1D, epoxy adduct 10595-60-5D, epoxy adduct RL: USES (Uses) (coating, cathodic, contg. crosslinker and polyester adhesion promoter, for film build)				
IT	86889-77-2D, amine adduct RL: TEM (Technical or engineered material use); USES (Uses) (coatings, cathodic, contg. crosslinker and polyester adhesion promoter, for improved film build and chip resistance)				
IT	71-36-3D, Butanol, polyurethane adduct 104-76-7D, 2-Ethylhexanol, polyurethane adduct RL: USES (Uses) (crosslinker, for epoxy coating contg. polyester adhesion promoter for film build and chip resistance)				
IT	9017-09-8D, TDI-trimethylol propane copolymer, ethylhexanol-blocked 67351-89-7D, Isonate-181, butanol-capped RL: MOA (Modifier or additive use); USES (Uses) (crosslinking agent, epoxy amine adduct coating contg. polyester adhesion promoter and, for film build and chip resistance)				

L7 ANSWER 34 OF 46 CA COPYRIGHT 2003 ACS
 AN 115:234775 CA
 TI Cathodic electrodeposition coatings containing lead cyanamide as a

supplementary catalyst
IN Debroy, Tapan K.; Chung, Ding Y.; Deschner, Craig R.; Tjoe, Sioe Heng A.
PA du Pont de Nemours, E. I., and Co., USA
SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08L031-00

ICS C25D013-00; B01J031-00

NCL 523415000

CC 42-3 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4994507	A	19910219	US 1990-481542	19900220
	CA 2036478	AA	19910821	CA 1991-2036478	19910215
PRAI	US 1990-481542		19900220		

AB Using lead cyanamide (I) in conjunction with a primary catalyst e.g., Bu₂SnO results in an electrocoat system with superior underbake cure without sacrificing chipping resistance during overbake cure. A cathodic bath contg. 851.0 parts emulsion of **Epon 828-bisphenol A-Tone 200** adduct (epoxy equiv 1170) reaction product with diethylenetriamine-MIBK adduct 553.19, crosslinker of 2-ethylhexanol-blocked Mondur TD-80-trimethylolpropane adduct 319.15, hexylcellulose 38.3, surfactant 6.38, HOAc 11.52, and H₂O 871.46 parts, 1013 parts H₂O, and 236.0 parts pigment paste contg. I 20.6, Bu₂Sn oxide 16.5, other pigments 371.5 in a dispersant 266.4 parts was applied onto Zn phosphate-treated cold-rolled steel panels at 225 V for 2 min and cured 17 min at 330.degree. to give a coating with good MEK resistance, vs. poor without I.

ST lead cyanamide catalyst electrodeposition coating

IT Crosslinking catalysts

(dibutyltin oxide contg. lead cyanamide, for cathodic coatings with superior underbake without sacrificing chip resistance during overbake)

IT Coating materials

(cathodic, curing catalysts for, dibutyltin oxide contg. lead cyanamide as)

IT 10595-60-5D, Diethylenetriamine-methyl isobutyl ketone adduct, reaction products with epoxy resin 86889-77-2D, adducts with amines
RL: USES (Uses)

(coating, dual cure catalyst for)

IT 104-76-7D, 2-Ethylhexanol, polyisocyanate-polyurethane blocked with 137139-77-6D, ethylhexanol-blocked

RL: USES (Uses)

(crosslinker, for epoxy electrocoating, dual cure catalyst for)

IT 20890-10-2, Lead cyanamide

RL: CAT (Catalyst use); USES (Uses)

(cure catalyst, with dibutyltin oxide, for cathodic coating)

IT 77-58-7, Dibutyltin dilaurate 818-08-6, Dibutyltin oxide

RL: CAT (Catalyst use); USES (Uses)

(cure catalyst, with lead cyanamide, for cathodic coating)

L7 ANSWER 35 OF 46 CA COPYRIGHT 2003 ACS

AN 113:106441 CA

TI Investment casting using photocurable composition

IN Murphy, Edward J.; Ansel, Robert E.; Krajewski, John J.

PA DeSoto, Inc., USA

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM G03C001-68

ICS B22C009-06

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9001727	A1	19900222	WO 1989-US3303	19890731
	W: AU, JP				
	RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	AU 8940513	A1	19900305	AU 1989-40513	19890731
	AU 637578	B2	19930603		
	EP 430992	A1	19910612	EP 1989-909285	19890731
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	JP 04500929	T2	19920220	JP 1989-508657	19890731
PRAI	US 1988-229476		19880808		
	US 1989-376612		19890707		
	WO 1989-US3303		19890731		
AB	A method of investment casting comprises the steps of: (a) investing a 3-dimensional pattern produced by stereolithog. in a refractory material, the pattern being a crosslinked polymeric matrix of a photocured liq. compn. having dispersed therein a thermoplastic material having a m.p. <150.degree. and the thermoplastic material being nonreactive and (b) heating the refractory material with the pattern within it to fuse the refractory material and to remove the pattern to produce a mold. The pattern used in the investment casting is produced from a photocurable liq. compn. comprising an oligomer having a m.p. <100.degree. and a no.-av. mol. wt. of 200-5000 and an ethylenically unsatd. material, the oligomer being present in an amt. in the range of 5-50 wt.%. The thermoplastic material is preferably selected from the group consisting of caprolactam, 2,2-dimethyl-3-hydroxypropyl propionate, di-Me terephthalate, dimethylcyclohexanol, dimethyldioxanedione, and mixts. thereof.				
ST	photocurable compn thermoplastic compd casting				
IT	Molds (forms) (photocurable compns. contg. thermoplastic compds. for forming 3-dimensional patterns for prodn. of)				
IT	Photoimaging compositions and processes (photocurable, contg. thermoplastic compds. for forming 3-dimensional patterns for prodn. of molds for casting)				
IT	Lithography (stereo-, for formation of three-dimensional patterns for prodn. of molds for casting, photocurable compns. contg. thermoplastic compds. for)				
IT	88-12-0, uses and miscellaneous 947-19-3, Irgacure 184 15625-89-5, Trimethylolpropane triacrylate 17273-19-7 48145-04-6 52408-84-1 53814-24-7, Epon 828 diacrylate 71833-41-5, Uvithane 893 75577-70-7 75577-72-9 116811-39-3, Novacure 3700 RL: USES (Uses) (photocurable compns. contg. thermoplastic compds. and, for 3-dimensional pattern formation for prodn. of molds for casting)				
IT	105-60-2, uses and miscellaneous 120-61-6, Dimethyl terephthalate 1115-20-4, Esterdiol 204 1333-45-5, Dimethylcyclohexanol 25322-68-3 92680-71-2, Tone 0310 128744-13-8 RL: USES (Uses) (photocurable compns. contg., for 3-dimensional pattern formation for prodn. of mold for casting)				
L7	ANSWER 36 OF 46 CA COPYRIGHT 2003 ACS				
AN	113:24736 CA				
TI	Reactive poly(vinyl chloride) containing hydroxy groups and its modification by polyanhydrides and reactive materials				
IN	Sharaby, Zaez				
PA	Goodrich, B. F., Co., USA				
SO	U.S., 11 pp. CODEN: USXXAM				
DT	Patent				
LA	English				
IC	ICM C08F008-00				

NCL 525069000
 CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4871801	A	19891003	US 1988-276175	19881125
	US 4962159	A	19901009	US 1989-401910	19890901
	US 4980423	A	19901225	US 1989-402203	19890901
	US 4988769	A	19910129	US 1989-402201	19890901
	US 4999406	A	19910312	US 1989-402004	19890901
	EP 371216	A2	19900606	EP 1989-116860	19890912
	EP 371216	A3	19910116		
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	AU 8941629	A1	19900531	AU 1989-41629	19890921
	JP 02191606	A2	19900727	JP 1989-264110	19891012

PRAI US 1988-276175 19881125

AB The reaction of a polymer contg. OH groups, prepd. from a vinyl halide and .gtoreq.1 ethylenically unsatd. monomer contg. .gtoreq.1 OH group, with a cyclic polyanhydride to give a polymer having free cyclic anhydride groups, followed by reaction of the anhydride groups with .gtoreq.1 substance selected from OH-contg. polyester or siloxanes, caprolactone polyols, acrylonitrile-oxazoline-styrene copolymers, epoxides, polyurethanes, OH-contg. plasticizers for lubricants, etc., permits the prepn. of a variety of graft polymer systems having properties tailored to sp. uses. A copolymer contg. OH groups, prepd. from vinyl chloride and **Tone** M-100 (acrylated caprolactone), was milled at 280.degree. F with 6.7 phr Epiclon B-4400, and the product was milled with 50.0 phr **Tone** 0240 (caprolactone polyol) to give an internally modified vinyl resin contg. 2.1% BuCl-extractable material, vs. 67.8 when PVC was milled with 55.5 phr **Tone** 0240.

ST grafting anhydride haloethene polymer; carboxylic anhydride grafting polymer; hydroxy polymer grafting anhydride; polyester grafting vinyl polymer; vinyl chloride polymer grafting; caprolactone grafting polymer anhydride; acrylate grafting polymer anhydride; plasticizer grafting polymer anhydride; lubricant grafting polymer anhydride; styrene grafting polymer anhydride; polyurethane grafting polymer anhydride

IT Lubricants

Plasticizers

(vinyl chloride copolymers contg. covalently bonded, prepn. of)

IT Siloxanes and Silicones, compounds

RL: PREP (Preparation)

(di-Me, hydroxy-terminated, reaction products, with cyclic anhydride-contg. vinyl chloride copolymers, prepn. of)

IT Polyesters, compounds

RL: PREP (Preparation)

(reaction products, with cyclic anhydride-contg. vinyl chloride copolymers, prepn. of)

IT 502-44-3DP, 2-Oxepanone, polyol derivs., reaction products with cyclic anhydride-contg. vinyl chloride copolymers 1732-97-4DP, reaction products with hydroxy-contg. vinyl chloride polymers and anhydride-reactive materials 9011-13-6DP, reaction products with hydroxy-contg. vinyl chloride polymers and anhydride-reactive materials 25036-25-3DP, Bisphenol A-bisphenol A diglycidyl ether copolymer, reaction products with cyclic anhydride-contg. vinyl chloride copolymers 31442-39-4DP, 2-Hydroxyethyl acrylate-vinyl chloride copolymer, reaction products with cyclic polyanhydrides and anhydride-reactive materials 73003-90-4DP, Epiclon B 4400, reaction products with hydroxy-contg. vinyl chloride polymers and anhydride-reactive materials 100359-88-4DP, **Tone** 0240, reaction products with cyclic anhydride-contg. vinyl chloride copolymers 103964-48-3DP, Cadon 330, reaction products with cyclic anhydride-contg. vinyl chloride copolymers 104491-99-8DP, **Epon** 1002F, reaction products with cyclic anhydride-contg. vinyl chloride copolymers 116010-28-7DP, Cadon 332, reaction products with cyclic anhydride-contg. vinyl chloride copolymers 126625-36-3DP,

reaction products with cyclic polyanhydrides and anhydride-reactive materials 126700-86-5DP, **Tone** 2241, reaction products with cyclic anhydride-contg. vinyl chloride copolymers 126758-14-3DP, reaction products with cyclic anhydride-contg. vinyl chloride copolymers
 RL: PREP (Preparation)
 (prepn. of)

L7 ANSWER 37 OF 46 CA COPYRIGHT 2003 ACS
 AN 112:199849 CA
 TI Urethane polymer alloys with reactive epoxy functional groups
 IN Czerwinski, Richard W.; Xiao, Han X.
 PA Genesco, Inc., USA
 SO U.S., 9 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C08L075-04
 NCL 525528000
 CC 37-3 (Plastics Manufacture and Processing)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4870142	A	19890926	US 1988-203180	19880607
	EP 417357	A1	19910320	EP 1989-309198	19890911
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	CA 1338884	A1	19970128	CA 1989-611127	19890912
	JP 03119020	A2	19910521	JP 1989-246247	19890920
	AU 637980	B2	19930617	AU 1989-41572	19890920
	AU 8941572	A1	19910328		
PRAI	US 1988-203180		19880607		

AB Curable, hot-melt polymer blends comprise (A) a polyurethane prepd. by the reaction of .gtoreq.1 polyisocyanates, .gtoreq.1 linear polyhydroxy compds., and/or .gtoreq.1 chain extenders, and (B) .gtoreq.1 epoxy resins. Thus, reaction of **Tone** 0260 and 1,4-butanediol and XP-744 (modified liq. methylene diisocyanate adduct, equiv. wt. 187) gave a polyurethane, which was mixed with 39% DER 732 (aliph. epoxy resin) to give a blend showing tensile strength 320 psi and elongation 50%.

ST polyurethane epoxy resin blend

IT Urethane polymers, uses and miscellaneous

RL: USES (Uses)

(epoxy resin blends, hot-melt, curable)

IT Epoxy resins, uses and miscellaneous

RL: USES (Uses)

(polyurethane blends, hot-melt, curable)

IT Plastics

RL: USES (Uses)

(polyurethane-epoxy resin blends, hot-melt, curable)

IT 105709-37-3 126494-35-7 126494-36-8 126494-37-9 126494-38-0
 126895-78-1

RL: USES (Uses)

(epoxy resin blends, hot-melt, curable)

IT 25068-38-6, **Epon** 834 25085-99-8, DER 337 29298-03-1

30401-87-7, DER 732 82029-76-3, **Epon** 8132

RL: USES (Uses)

(polyurethane blends, hot-melt, curable)

L7 ANSWER 38 OF 46 CA COPYRIGHT 2003 ACS
 AN 109:75373 CA
 TI Anticorrosive formable epoxy resin coatings
 IN Colon, Ismael; Smith, Donald Foss, Jr.
 PA Union Carbide Corp., USA
 SO Eur. Pat. Appl., 13 pp.
 CODEN: EPXXDW
 DT Patent
 LA English

IC ICM C09D003-58
ICA C08L063-00
ICI C08L071-02, C08L067-04, C08L075-06
CC 42-9 (Coatings, Inks, and Related Products)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 262613	A2	19880406	EP 1987-114048	19870925
	EP 262613	A3	19891129		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
	AU 8778869	A1	19880331	AU 1987-78869	19870923
	DK 8705042	A	19880327	DK 1987-5042	19870925
	NO 8704030	A	19880328	NO 1987-4030	19870925
	BR 8704943	A	19880517	BR 1987-4943	19870925
	JP 63159478	A2	19880702	JP 1987-239126	19870925
PRAI	US 1986-911815		19860926		

AB The title coatings comprise epoxy resins, 1-50% modifier resins having reduced viscosity (THF, at 25.degree.) 0.1-2 dL/g, glass temp. (Tg) from -120.degree. to 30.degree., soly. 1 g/100 g in Cellolsolve acetate, mol wt. 2000-90,000, and particulate materials and/or crosslinkers. Thus, a compn. contg. 70:30 blend of **Epon** 1001 (epoxy resin) and **Tone** 0260 (caprolactone polyol) 45, solvent 287, particulate Zn 300, antissettling agent 11, silica 2.7, and CaO 1.5 parts was applied to steel test panels primed with Zn/Cr and baked at 260.degree. for 2 min to give coatings having good adhesion and appearance (rated highest) in a formability test (circular samples twice drawn at 305 mm/min).

ST epoxy resin blend coating formable; polyester blend coating formable; anticorrosive epoxy polyester blend coating

IT Crosslinking agents

(melamine resins, for epoxy-polyester formable coatings)

IT Coating materials

(anticorrosive, conformal, polyester-epoxy resin blends, on metal substrates in draw-redraw applications)

IT 85023-89-8, Bisphenol A-epichlorohydrin-formaldehyde-melamine copolymer

RL: TEM (Technical or engineered material use); USES (Uses)

(coatings, contg. polyesters, anticorrosive, formable)

IT 9003-08-1

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agents, epoxy resin-polyester blend coatings contg.)

IT 101964-15-2, **Tone** 0260

RL: USES (Uses)

(epoxy resin blends, coatings contg., anticorrosive, formable)

IT 25068-38-6, Bisphenol A-epichlorohydrin copolymer

RL: USES (Uses)

(polyester blends, coatings contg., anticorrosive, formable)

L7 ANSWER 39 OF 46 CA COPYRIGHT 2003 ACS

AN 108:206377 CA

TI Chip-resistant epoxy-polyurethane primer composition

IN Kordomenos, Panagiotis I.; Dervan, Andrew H.; Grebur, Dennis J.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 14 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08G063-06

ICS C08G063-20; C08G063-60; C08L063-02

NCL 525438000

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4713425	A	19871215	US 1985-800942	19851122
	US 4786691	A	19881122	US 1987-82655	19870807
PRAI	US 1985-800942		19851122		

AB Title high-solids hot-sprayable primer, useful for automobile bodies, comprises (a) a hydroxy-functional epoxy ester having no.-av. mol. wt. 1000-4000 from chain-extended product of diepoxide-diphenol-dicarboxylic acid with hydroxy functional acid chain terminator, (b) linear polycaprolactone diol, and (c) blocked polyisocyanate crosslinker in amt. of 10-50% of 1-4:4:1 a-b mixt. Heating **Epon 829** 519, bisphenol A 137, and azelaic acid 54 parts to 180.degree., exotherm to 200.degree. and holding for 1 h gave product with acid no. <1, to which was added 171 parts 2,2-bis(hydroxymethyl)propionic acid and 1 part EtPh3PI and heated at 180.degree. for 1 h to give an epoxy ester resin (I). A primer compn. contg. I 1799, millbase contg. TiO2, barytes, C black, SrCrO3 5788 **Tone** 0260 (polycaprolactone diol) 950, Bentone gel 2315, PAPI-27 984, antisag agent (Dislon) 114, and SiO2 (antisetling agent) 142 parts was sprayed onto Bonderite steel panels at 140-160.degree. and baked at 135.degree. for 20 min to give 5-12 mil coatings having good chipping resistance.

ST epoxy ester coating chipping resistance; polyisocyanate coating chipping resistance; polycaprolactone diol coating chipping resistance; epoxy polyurethane coating chipping resistance

IT Crosslinking agents
(blocked polyisocyanates, for hydroxy-functional epoxy ester resin and polycaprolactone diol)

IT Fatty acids, polymers
RL: USES (Uses)
(C18-unsatd., dimers and trimers, epoxy resin deriv., polymer with polycaprolactone diol and polyisocyanate, for primers)

IT Coating materials
(chip-resistant, primers, epoxy-polyurethane, for steel auto body panels)

IT 12597-69-2
RL: MSC (Miscellaneous)
(coating materials, chip-resistant, primers, epoxy-polyurethane, for steel auto body panels)

IT 80-05-7D, epoxy ester with bishydroxymethylpropionic acid, polymer with polycaprolactone diol and polyisocyanate 4035-89-6D, polymer with polycaprolactone diol and hydroxy group-contg. epoxy ester 4767-03-7D, ester with epoxy resin, polymer with polycaprolactone diol and polyisocyanate 9016-87-9D, Polymethylene polyphenylene isocyanate, polymer with polycaprolactone diol and hydroxy group contg. epoxy ester 25068-38-6D, **Epon 829**, epoxy ester with bishydroxymethylpropionic acid, polymer with polycaprolactone diol and polyisocyanate 54986-73-1D, Desmodur IL, polymer with polycaprolactone diol and hydroxy group-contg. epoxy ester 101964-15-2D, polymer with hydroxyfunctional epoxy ester and polyisocyanate 114442-08-9
RL: USES (Uses)
(coating primers, chipping-resistant)

L7 ANSWER 40 OF 46 CA COPYRIGHT 2003 ACS

AN 108:152247 CA

TI Chip-resistant epoxy-polyurethane primer

IN Kordomenos, Panagiotis I.; Dervan, Andrew H.; Grebur, Dennis J.

PA du Pont de Nemours, E. I., and Co., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08G063-06

ICS C08G063-66; C08G063-02

NCL 525449000

CC 42-10 (Coatings, Inks, and Related Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4701502	A	19871020	US 1985-808763	19851213
PRAI	US 1985-808763		19851213		

AB Title primer, useful in hot-spray, high-solids application to vehicle body panels is the thermosetting compn. of a hydroxy functional acid-terminated diepoxide-dicarboxylic acid copolymer, a linear polycaprolactone diol, and a blocked polyisocyanate crosslinker. A chip-resistant coating was prepd. from a compn. contg. Araldite RD-2 azelate (acid no. <1) adduct with 2,2-bis(hydroxymethyl)propionic acid 1627, TiO₂-barytes-C black-SrCrO₄ millbase 5788, **Tone** 0260 (polycaprolactone diol) 950, Bentone gel 2315, Me Et ketoxime-2-ethylhexanol blocked PAPI 27 (crosslinker) 984, Dislon (antisag agent) 114, and fumed silica 142 parts.

ST chipping resistance primer automobile; epoxy polyisocyanate polycaprolactone diol crosslinking; hydroxy functional epoxy ester coating; ethylhexanol ketoxime blocked polyisocyanate

IT Automobiles
(chipping-resistant primers for, epoxy-polyurethane resin as)

IT Crosslinking
(of polyisocyanate with hydroxy-functional epoxy ester and polycaprolactone)

IT Fatty acids, polymers
RL: USES (Uses)
(C18-unsatd., dimers and trimers, reaction products with epoxy ester, polymers with polyisocyanate and polycaprolactone diol, primer, chipping-resistant)

IT Coating materials
(chip-resistant, primers, solvent-based, epoxy resin-polyurethane, on automotive body panels)

IT 4035-89-6D, polymer with epoxy ester and polycaprolactone diol 4767-03-7D, reaction product with epoxy ester, polymer with polyisocyanate and polycaprolactone diol 9016-87-9D, PAPI, polymer with epoxy ester and polycaprolactone diol 25068-38-6D, **Epon** 829, reaction product with fatty acid dimer and bis(hydroxymethyl)propionic acid, polymer with polyisocyanate and polycaprolactone diol 26471-62-5D, polymer with epoxy ester and polycaprolactone diol 39993-10-7D, reaction product with bis(hydroxymethyl)propionic acid, polymer with polyisocyanate and polycaprolactone diol 54986-73-1D, Desmodur IL, polymer with epoxy ester and polycaprolactone diol 113783-13-4D, reaction product with bis(hydroxymethyl)propionic acid, polymer with polyisocyanate and polycaprolactone diol
RL: USES (Uses)
(primer, chipping-resistant, for automobile body parts)

IT 101964-15-2D, **Tone** 0260, polymer with hydroxy-terminated epoxy ester and polyisocyanate
RL: USES (Uses)
(primer, chipping-resistant, on automobile body parts)

L7 ANSWER 41 OF 46 CA COPYRIGHT 2003 ACS

AN 106:157483 CA

TI Aqueous epoxy-urethane-based sizing agents for glass fibers for reinforcing plastics

IN Das, Balbhadra; Temple, Chester S.; Melle, Carl A.

PA PPG Industries, Inc. , USA

SO U.S., 11 pp.
CODEN: USXXAM

DT Patent

LA English

IC ICM B32B009-00
ICS D02G003-00

NCL 428391000

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4637956	A	19870120	US 1985-717758	19850329
	US 4745028	A	19880517	US 1986-875045	19860617
PRAI	US 1985-717758		19850329		
AB	Aq. sizing-agent dispersions for glass fibers for producing reinforced				

plastics with good toughness contain reaction products of epoxy resin, polyols, primary or secondary amines, and blocked crosslinkable polyisocyanates and minor amts. of organosilane coupling agents, cationic or nonionic lubricants, and optionally, film-forming polymers. Glass fibers (filament diam. 10 .mu.) were treated with an aq. compn. contg. 120:120:120:221:19 Amine C (alkyl imidazole)-Surpynol 104 (an acetylenic alc.)-BuO(CH₂)₂OH-water-HOAc mixt. surfactant, a Bu₂SnO-based catalyst paste, Epirez CMD 35201 film-former, Y-5987 (silylated polyazamide) coupler, and an adduct prepd. by the reaction of **Epon 828**, **Tone 200** [diethylene glycol-initiated poly(.epsilon.-caprolactone)], bisphenol A, 3:3:1 methylenebis(4-cyclohexyl isocyanate)-BuO(CH₂)₂O-trimethylolpropane adduct, diethylenetriamine-MIBK adduct, MeNH(CH₂)₂O, and Polymeg 650 (polytetramethylene glycol). A 0.128-in.-thick polyoxyphenylene molding contg. 20% strands of the above-treated fibers exhibited tensile strength 12,700 psi, flex strength 16,500, and Izod impact 1.91, compared with 11,900, 14,800, and 1.52, resp., for a similar molding contg. com. glass strands.

ST epoxy urethane sizing glass fiber; polyoxyphenylene glass reinforced; polycaprolactone diol polyurethane sizing fiber; methylenebiscyclohexyl isocyanate polyurethane sizing fiber; diethylenetriaminepolyurethane sizing glass fiber; polytetramethylene glycol polyurethane sizing fiber; silylated polyazamide coupler glass fiber; aminoethanol polyurethane sizing glass fiber; bisphenol epoxy polyurethane sizing fiber; polyurea polyurethane epoxy sizing fiber

IT Sizes
 (epoxy-polyester-polyurea-polyurethanes, for glass fibers for reinforcing plastics)

IT Polyesters, uses and miscellaneous
 RL: USES (Uses)
 (glass fiber-reinforced, sizing agents for, epoxy-polyurethane compns. as)

IT Coupling agents
 (organosilanes, for glass fibers sized with epoxy-polyurethanes, for reinforcing plastics)

IT Lubricants
 (polyamino-amide, for glass fibers sized with epoxy-polyurethanes, for reinforced plastics)

IT Glass fibers, uses and miscellaneous
 RL: USES (Uses)
 (sizing agents for, epoxy-polyurethane-based, for reinforcing plastics)

IT Urethane polymers, preparation
 RL: PREP (Preparation)
 (epoxy-polyester-polyurea-, sizing agents, aq., manuf. of, for glass fibers for reinforcing plastics)

IT Polyureas
 RL: PREP (Preparation)
 (epoxy-polyester-polyurethane-, sizing agents, aq., manuf. of, for glass fibers for reinforcing plastics)

IT Polyesters, preparation
 RL: PREP (Preparation)
 (epoxy-polyurea-polyurethane-, sizing agents, aq., manuf. of, for glass fibers for reinforcing plastics)

IT Epoxy resins, preparation
 RL: PREP (Preparation)
 (polyester-polyurea-polyurethane-, sizing agents, aq., manuf. of, for glass fibers for reinforcing plastics)

IT 919-30-2, .gamma.-Aminopropyltriethoxysilane
 RL: USES (Uses)
 (coupling agents, A-1100, for glass fibers sized with epoxy-polyurethanes, for reinforcing plastics)

IT 2530-85-0, .gamma.-Methacryloyloxypropyl trimethoxysilane
 RL: USES (Uses)
 (coupling agents, A-174, for glass fibers sized with epoxy-polyurethanes, for reinforcing plastics)

IT 56091-05-5, Y-5987

RL: USES (Uses)
 (coupling agents, for glass fibers sized with epoxy-polyurethanes, for reinforcing plastics)

IT 71966-04-6, Derakane 790
 RL: USES (Uses)
 (glass fiber-reinforced, sizing agents for, aq. epoxy-polyurethane compns. as)

IT 9041-80-9, Polyoxyphenylene
 RL: USES (Uses)
 (glass fiber-reinforced, sizing agents for, epoxy-polyurethane compns. as)

IT 107852-39-1
 RL: USES (Uses)
 (lubricants, for glass fibers sized with epoxy-polyurethanes, for reinforcing plastics)

IT 107592-62-1P
 RL: PREP (Preparation)
 (manuf. of, for sizing agents for glass fibers for plastics)

IT 24937-78-8, Ethylene-vinyl acetate copolymer
 RL: USES (Uses)
 (sizing agents contg., Arcoflex 510, epoxy-polyurethane-based, for glass fibers for reinforcing plastics)

IT 25085-99-8, Epirez CMD 35201
 RL: USES (Uses)
 (sizing agents contg., Epirez CMD 35201, epoxy-polyurethane-based, for glass fibers for reinforcing plastics)

IT 26660-37-7, Glycidyl methacrylate-vinyl acetate copolymer
 RL: USES (Uses)
 (sizing agents contg., Resyn 25-1971, epoxy-polyurethane-based, for glass fibers for reinforcing plastics)

L7 ANSWER 42 OF 46 CA COPYRIGHT 2003 ACS
 AN 106:85891 CA
 TI Curable epoxy-acrylamide compositions
 IN Seiner, Jerome Allan; Schappert, Raymond Francis
 PA PPG Industries, Inc., USA
 SO Eur. Pat. Appl., 28 pp.
 CODEN: EPXXDW

DT Patent
 LA English
 IC ICM C08F283-10
 ICS C08G059-44; C09J003-00; C09D003-58; C09J003-16
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 55

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 197524	A2	19861015	EP 1986-104652	19860405
	EP 197524	A3	19881117		
	R: DE, FR, GB, IT				
	ES 553856	A1	19880401	ES 1986-553856	19860410
	JP 61252223	A2	19861110	JP 1986-84864	19860411
PRAI	US 1985-721840		19850411		

AB Adhesives, suitable for automobile structure bonding, are prepd. from curable mixts. of (meth)acrylamide polymers and polyepoxides. Thus, adhesive prepd. from 75 parts **EPON** 828, 50 parts curable resin (I) obtained from 3004 g N-butoxymethylacrylamide (62% in BuOH) and 2012 g propoxylated bisphenol A in the presence of H3PO4, 2.0 parts radical initiator (Trigonox29B75), 6.1 parts dicyandiamide, 62.5 parts Al powder, and 6 parts CAB-O-Sil had lap shear strength between steel 491 psi and cohesive failure 100% after 15 min at 250.degree.F, or 2362 and 45, resp., after a further 60 min at 350.degree.F; vs. 244 and 0 or 1828 and 0, resp., with hexanediol acrylate in place of I.

ST adhesive curing compn; acrylamide deriv copolymer adhesive; bisphenol A epoxy resin adhesive; automobile bonding adhesive; butoxymethylacrylamide

copolymer adhesive
 IT Adhesives
 (acrylamide deriv.-epoxy resin mixts., for automobile manuf.)
 IT Automobiles
 (adhesives for manuf. of, epoxy resin-acrylamide deriv. blends as)
 IT Epoxy resins, uses and miscellaneous
 RL: TEM (Technical or engineered material use); USES (Uses)
 (adhesives, contg. acrylamide derivs., for automobile manuf.)
 IT 25068-38-6
 RL: TEM (Technical or engineered material use); USES (Uses)
 (adhesives, **Epon** 828, contg. acrylamide derivs., for
 automobile manuf.)
 IT 1852-16-0D, N-(Butoxymethyl)acrylamide, reaction products with
 caprolactone acrylates 35340-43-3, Trimethylolpropanetris(acrylamidometh
 yl)ether 52954-09-3, Polypropylene glycol bis(acrylamidomethyl)ether
 52994-27-1, N,N'-[Hexamethylenebis(oxyethylene)diacrylamide
 101484-78-0D, **Tone** M100, reaction products with
 (butoxymethyl)acrylamide 106900-17-8, Dipropylene glycol
 bis(acrylamidomethyl)ether 106912-55-4
 RL: TEM (Technical or engineered material use); USES (Uses)
 (adhesives, contg. epoxy resins, for automobile manuf.)
 IT 461-58-5, Dicyandiamide
 RL: MOA (Modifier or additive use); USES (Uses)
 (crosslinking agents, for epoxy resin-acrylamide deriv. adhesives)
 IT 106-91-2 622-97-9
 RL: USES (Uses)
 (epoxy resin-acrylamide deriv. adhesives contg., for automobile manuf.)
 IT 25265-71-8, Dipropylene glycol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with (butoxymethyl)acrylamide)
 IT 629-11-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with butoxymethylacrylamide)
 IT 1852-16-0, N-(Butoxymethyl)acrylamide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with polyols)

L7 ANSWER 43 OF 46 CA COPYRIGHT 2003 ACS

AN 83:155786 CA

TI Epoxy resin photoresist with iodoform and bismuth triphenyl

IN Roteman, Jerome

PA American Can Co., USA

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

IC G03C; C01J; D01J

NCL 096115000R

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic Processes)

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3895954	A	19750722	US 1973-369086	19730611
	US 3977874	A	19760831	US 1975-553264	19750226
	US 3977878	A	19760831	US 1975-553262	19750226
	US 3988152	A	19761026	US 1975-553263	19750226
PRAI	US 1973-369086		19730611		

AB Organometallic compds. are used to enhance the film-forming properties of epoxy resin-organohalogen type photoresist compns. The organometallic compds. function synergistically with the organohalogen compds. in polymerizing the epoxide material. Thus, Soln. A contg. **Epon** 1009 21.7, MeCOEt 16.2, toluene 16.2 g and Soln. B contg. MeCOEt 32.8, iodoform 9.8, and triphenylbismuthine 3.3 g were mixed together, coated on a silicate precoated Al offset plate, exposed through a step tablet (18 cm distance, Hg lamp, 5 min), heated at 110.degree. for 3 min, and developed

in MeCOEt with rubbing with cheesecloth to give a neg. image corresponding to the 1st 6 steps of the tablet, which had 21 continuous **tone** steps varying from optical ds. of 0.05-3.05.

ST photoresist epoxide organohalogen organometallic
IT Resists
 (photo-, epoxy resin, contg. organometallics and organohalogens)
IT Organometallic compounds
 RL: USES (Uses)
 (photoresist compns. contg. epoxy resin, organohalogen, and)
IT 603-33-8
 RL: USES (Uses)
 (photoresist compn. contg. epoxy resin, iodoform, and)
IT 75-47-8 558-13-4
 RL: USES (Uses)
 (photoresist compn. contg. epoxy resin, triphenylbismuthine, and)
IT 25068-38-6 37348-54-2 38333-89-0 53148-82-6
 RL: USES (Uses)
 (photoresist compn. contg. iodoform, triphenylbismuthine, and)

L7 ANSWER 44 OF 46 CA COPYRIGHT 2003 ACS
AN 76:134176 CA
TI Electrophotographic image-producing process
IN Takiuchi, Motohiro; Yamamoto, Yoshiko; Hayashi, Yoshiki
PA Matsushita Electric Industrial Co., Ltd.
SO Brit., 6 pp.
CODEN: BRXXAA
DT Patent
LA English
IC G03G
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1261793		19720126	GB 1969-13898	19690317
AB	An electrophotog. imaging process for reproducing continuous- tone images uses a plate comprised of a photog. insulating top layer, a conductive layer, and an insulating back layer. A uniform charge of the same polarity is given to the top surface before and to the back surface of the insulating back layer before or after imagewise exposure of the top surface. Development of the electrostatic latent image produced on the top surface gives a visible image. Thus, a 1 .mu. thick photoconductive layer of CuI is vapor deposited on a 75 .mu. thick poly(ethylene terephthalate) support (insulating back layer). The conductive layer is coated with a PhCl (8 ml)-Cl ₂ C ₆ H ₄ (2 ml) soln. contg. 1 g brominated poly(N-vinylcarbazole), 0.1 g Adecasizer S-3 (chlorinated aliphatic acid ester), 0.2 g Epon 828 (epoxy resin), 0.5 g Panlite-C (polycarbonate resin), and 0.003 g of an isopropylphenyl-phenylbutadienylbenzopyrylium perchlorate. Upon drying the insulating top layer is charged to +900 V and the back surface to +500 V. The plate is developed for 1 sec with a liq. developer contg. pos. charged toner particles (1.5 mg/ml). A good continuous- tone image suitable for microfilm reproduction, with a resolution >120 lines/mm is obtained.				
ST	electrophotog continuous tone imaging				
IT	Photography, electro- (for continuous tone images for microfilm reproduction, photoconductive elements for)				

L7 ANSWER 45 OF 46 CA COPYRIGHT 2003 ACS
AN 75:114835 CA
TI Image production by electrophotography
PA Matsushita Electric Industrial Co., Ltd.
SO Fr., 15 pp.
CODEN: FRXXAK
DT Patent
LA French

IC G03G
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2032238		19701120	FR	19690224
AB	Electrophotog. images with a continuous tone are obtained by giving a uniform charge to the top and bottom surfaces of an electrophotog. plate, consisting of an upper insulating photoconductive layer, a conducting layer and a lower insulating layer. The lower layer must maintain an electrostatic charge in the dark or in the light for a time at least greater than that necessary for development. Thus, a lower insulating layer (75-.mu. thick) of poly(ethylene terephthalate) is coated with a thin layer of CuI (<1 .mu.), the conducting layer, by vapor deposition and overcoated with a compn. contg. 1 g of poly-N-vinylcarbazole bromide, 0.1 g chlorinated aliphatic acid ester Adecaizer S-3, 0.2 g epoxy resin epon 828, 0.5 g polycarbonate resin Pantite-C, and 0.003 g of 2-(.alpha.-isopropyl-.omega.-phenylbutodiezyl)benzopyrigrutin perchlorate dissolved in a mixt. of solvents formed from 8 ml of chlorobenzene and 2 ml of dichloroethane. to form a dry upper photoconductive insulating layer 8 .mu. thick. The top surface of this plate is charged to a uniform potential of +900 V and the bottom surface to +1500 V. The top surface is exposed to a light image and developed with a liq. developer for 1 sec to give a visible image of resolution >120 lines/mm with continuous tone , suitable for the reproduction of microfilm.				
ST	electrophotog org layers; carbazole electrophotog layers; halide carbazole electrophotog layers				
IT	Photography (electro-, images with continuous tones by, for microfilm copying)				

L7 ANSWER 46 OF 46 CA COPYRIGHT 2003 ACS

AN 58:54051 CA

OREF 58:9293f-h,9294a

TI Photosensitive epoxy-resin compositions

PA Minnesota Mining and Manufg. Co.

SO 12 pp.

DT Patent

LA Unavailable

CC 48 (Plastics Technology)

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 912022		19621205	GB	
PRAI	US		19571125		

AB An epoxy-resin monomer mixed with a nitrosamine curing agent formed a useful photosensitive system. Thus, in yellow light, I part methylvinylnitrosamine (I) mixed with 10 parts epoxy resin prepolymer formed a homogeneous soln. which, when cast on a glass sheet and exposed to ultraviolet light, increased in viscosity more rapidly than similar specimens merely heated to 90.degree.. Allylpropen-1-yl nitrosamine as a 10% soln. in a liquid bisphenol (**Epon** 828) had similar properties. A soln. of 20 parts poly(glycidyl methacrylate) (II) and 6 parts I in 40 parts dioxane was applied to a sheet of silicated Al to form a 0.002-0.003-in. layer (dried). Drying took place in a dark, dust-free location at a moderate rate. A half-**tone** neg. of about 125 lines/in. was applied to the plate and it was exposed to ultraviolet light. The exposed plate was heated to 140.degree. for 3 min. (or 120.degree. for 15 min.), washed with Me₂CO to remove prepolymer, and dried. The resulting plate was useful as a photo-offset plate for olanographic printing and in a letter press. A soln. of 6.5 parts II and 1.8 parts 1,2-bis(vinylnitrosamino)-ethane in 40 parts of dioxane was poured over a 0.005-in. sheet of poly(ethylene terephthalate). The soln. was dried in the dark at 23.degree. to form a 0.005-in. coating. A line neg. copy was placed over the sheet and was exposed to ultraviolet light for 5 min. at 4 in. from a B-H6 lamp. The exposed plate was heated to

120.degree. for 15 min. to "fix" the image, washed in Me2CO to remove uncured H, and dried, yielding a plate which gave good reproduction of printed text or half-tone images when used on a horizontal flat-bed press.

- IT Graphic arts
(light-sensitive epoxy resin mixts. with nitrosamine curing agents for)
- IT Amines
(nitroso, as photosensitive curing agents for epoxy resins)
- IT Epoxy resins
(photosensitive compns. from, with nitrosamine curing agents)
- IT Lithography
(plates for, photosensitive epoxy resins mixts. with nitrosamine curing agents for)
- IT Printing
(plates, photosensitive epoxy resin compns. contg. nitrosamine curing agents for)
- IT Amides
(poly-, with amines, as catalysts for curing of epoxy resins with anhydrides)
- IT 4549-40-0, Vinylamine, N-methyl-N-nitroso- 70501-87-0, Propenylamine, N-allyl-N-nitroso- 89488-91-5, Ethylenediamine, N,N'-dinitroso-N,N'-divinyl-
(as curing agent for epoxy resins)

=> S EPON SU 8

6016 EPON
25101 SU
2305398 8

L9 47 EPON SU 8
(EPON(W)SU(W)8)

=> S L9 AND POLYOL

30565 POLYOL

L10 2 L9 AND POLYOL

=> D ALL 1-2

L10 ANSWER 1 OF 2 CA COPYRIGHT 2003 ACS
AN 133:351621 CA
TI Polyester-based varnish for UV-curable inks
IN Badou, Ignace M.
PA Flint Ink Corporation, USA
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C09D011-10
ICS C09D167-00; C09D163-04; C08G081-00
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066669	A1	20001109	WO 2000-US11475	20000428
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI US 1999-304806	A1	19990504		

AB A nonlinear polyester-based varnish useful in UV-curable ink compns. comprises a nonlinear polyester-based resin which is a reaction product of a polyester oligomer having a novolac epoxy resin with a polyester oligomer which is prepd. from a polycarboxylic acid component, a **polyol** component, and a rosin component and has a no.-av. mol. wt. of 600-5000.

ST polyester novolak epoxy ink varnish UV curable

IT Resin acids
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (dimers, Dymere, polyesters; polyester-based varnish for UV-curable inks)

IT Phenolic resins, preparation
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (epoxy, novolak; polyester-based varnish for UV-curable inks)

IT Polyesters, uses
 Polyesters, uses
 Polyesters, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxy-phenolic, novolak; polyester-based varnish for UV-curable inks)

IT Phenolic resins, uses
 Phenolic resins, uses
 Phenolic resins, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxy-polyester-, novolak; polyester-based varnish for UV-curable inks)

IT Inks
 (lithog.; polyester-based varnish for UV-curable inks)

IT Epoxy resins, preparation
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (phenolic, novolak; polyester-based varnish for UV-curable inks)

IT Epoxy resins, uses
 Epoxy resins, uses
 Epoxy resins, uses
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (phenolic-polyester-, novolak; polyester-based varnish for UV-curable inks)

IT Inks
 (photocurable; polyester-based varnish for UV-curable inks)

IT Lithography
 Varnishes
 (polyester-based varnish for UV-curable inks)

IT Polyesters, preparation
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (polyester-based varnish for UV-curable inks)

IT 65-85-0DP, Benzoic acid, reaction products, uses 77-99-6DP, Trimethylolpropane, polymers 121-91-5DP, Isophthalic acid, polymers 177403-04-2DP, **Epon SU 8**, reaction products with polyesters
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (polyester-based varnish for UV-curable inks)

IT 52408-84-1, OTA 480
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (polyester-based varnish for UV-curable inks)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; 1988, 6, CA

- (2) Anon; 1991, 14, CA
- (3) Arakawa Kagaku Kogyo Kk; JP 03267946 A 1991 CA
- (4) Basf Farben & Fasern; EP 0112465 A 1984 CA
- (5) Demejo; US 5112715 A 1992 CA
- (6) Fujikura Kasei Co Ltd; JP 62295068 A 1987 CA
- (7) Hutter; US 5212213 A 1993 CA
- (8) Sun Chemical Corp; GB 2077279 A 1981 CA
- (9) Toyo Ink Mfg Co Ltd; JP 02051516 A 1990 CA

L10 ANSWER 2 OF 2 CA COPYRIGHT 2003 ACS

AN 125:117438 CA

TI Effects of key variables on retortability, flexibility and other physical properties of UV-curable cationic epoxide coatings. III

AU Carter, J. Wells; Braddock, John K.

CS Union Carbide Corporation, Danbury, CT, 06817-0001, USA

SO RadTech Europe 95 Conference Proceedings, Maastricht, Neth., Sept. 25-27, 1995 (1995), 499-506 Publisher: RadTech Europe, Fribourg, Switz.

CODEN: 63BHAL

DT Conference

LA English

CC 42-4 (Coatings, Inks, and Related Products)

AB The effects of cycloaliph. epoxide resin mol. wt (CMW), epoxy novolac resin functionality (f), epoxy/hydroxy mol ratio (R), cycloaliph. epoxide resin/epoxy novolac resin wt. ratio (C/N), and coating thickness (CT) on retortability, pasteurizability, wedge-bend flexibility before and after retort, and pencil hardness of UV-curable cationic coatings were detd. using a half-fraction factorial-designed set of expts. The effects of the variables on coating viscosity were detd. using the design except that temp. was used as a variable in place of CT. Data anal. revealed main effects and the effects of two-factor interactions on properties. Contour plots showing the effects of interactions were presented and can be used to optimize properties. The model coatings were retortable and pasteurizable when baked after UV processing. The anal. predicted thin coatings contg. low-MW cycloaliph. epoxide resin, low-f epoxy novolac resin, and polyester **polyol** had high retort wedge-bend resistance and hardness. Viscosity was minimized by minimizing epoxy novolac resin concn. and functionality and warming the coatings; using a lower-viscosity polyester **polyol** would also help lower viscosity because of the importance of R.

ST epoxy novolac coating structure property

IT Chains, chemical

(phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT Coating materials

RL: PRP (Properties)

(phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT Polyesters, properties

RL: PRP (Properties)

(epoxy-phenolic, novolak, phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT Phenolic resins, properties

RL: PRP (Properties)

(epoxy-polyester-, novolak, phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT Epoxy resins, properties

RL: PRP (Properties)

(phenolic-polyester-, novolak, phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT 104558-95-4, Cyacure UVI 6990

RL: CAT (Catalyst use); USES (Uses)

(Cyacure UVI 6990; phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT 25085-98-7D, Cyacure UVR-6110, polymers

RL: PRP (Properties)

(Cyracure UVR 6110; phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT 68924-34-5D, polymers
 RL: PRP (Properties)
 (Cyracure UVR 6128; phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT 50830-64-3D, Desmophen 800, polymers
 RL: PRP (Properties)
 (Desmophen 800; phys. properties of UV-curable cationic epoxide coatings as function of structure)

IT 177403-04-2D, **Epon SU-8**, polymers
 179800-10-3D, Epon SU 3, polymers
 RL: PRP (Properties)
 (phys. properties of UV-curable cationic epoxide coatings as function of structure)

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
144.36	241.92

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-29.76	-32.86

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	Feb 24	PCTGEN now available on STN
NEWS 4	Feb 24	TEMA now available on STN
NEWS 5	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 6	Feb 26	PCTFULL now contains images
NEWS 7	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 8	Mar 24	PATDPAFULL now available on STN
NEWS 9	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 10	Apr 11	Display formats in DGENE enhanced
NEWS 11	Apr 14	MEDLINE Reload
NEWS 12	Apr 17	Polymer searching in REGISTRY enhanced
NEWS 13	Jun 13	Indexing from 1947 to 1956 added to records in CA/CAPLUS
NEWS 14	Apr 21	New current-awareness alert (SDI) frequency in WPIDS/WPINDEX/WPIX
NEWS 15	Apr 28	RDISCLOSURE now available on STN
NEWS 16	May 05	Pharmacokinetic information and systematic chemical names added to PHAR
NEWS 17	May 15	MEDLINE file segment of TOXCENTER reloaded
NEWS 18	May 15	Supporter information for ENCOMPPAT and ENCOMPLIT updated
NEWS 19	May 19	Simultaneous left and right truncation added to WSCA
NEWS 20	May 19	RAPRA enhanced with new search field, simultaneous left and

right truncation

NEWS 21	Jun 06	Simultaneous left and right truncation added to CBNB
NEWS 22	Jun 06	PASCAL enhanced with additional data
NEWS 23	Jun 20	2003 edition of the FSTA Thesaurus is now available
NEWS 24	Jun 25	HSDB has been reloaded
NEWS 25	Jul 16	Data from 1960-1976 added to RDISCLOSURE
NEWS 26	Jul 21	Identification of STN records implemented
NEWS 27	Jul 21	Polymer class term count added to REGISTRY
NEWS 28	Jul 22	INPADOC: Basic index (/BI) enhanced; Simultaneous Left and Right Truncation available

NEWS EXPRESS	April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

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	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

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STRUCTURE FILE UPDATES: 31 JUL 2003 HIGHEST RN 558423-85-1
 DICTIONARY FILE UPDATES: 31 JUL 2003 HIGHEST RN 558423-85-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> s gamma butyrolactone/cn
 L1 0 GAMMA BUTYROLACTONE/CN

=> s gamma butyrolactone

119168 GAMMA
636 BUTYROLACTONE
L2 427 GAMMA BUTYROLACTONE
(GAMMA (W) BUTYROLACTONE)

=> d 427

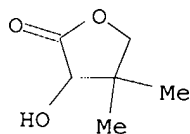
L2 ANSWER 427 OF 427 REGISTRY COPYRIGHT 2003 ACS on STN
RN 79-50-5 REGISTRY
CN 2(3H)-Furanone, dihydro-3-hydroxy-4,4-dimethyl- (8CI, 9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2(3H)-Furanone, dihydro-3-hydroxy-4,4-dimethyl-, (.+-.)-

OTHER NAMES:

CN (.+-.)-2-Hydroxy-3,3-dimethyl-.gamma.-butyrolactone
CN (.+-.)-Pantolactone
CN (.+-.)-Pantoyl lactone
CN (RS)-Pantolactone
CN .alpha.-Oxy-.beta.,.beta.-dimethyl-.gamma.-butyrolactone
CN 2,4-Dihydroxy-3,3-dimethylbutanoic acid .gamma.-lactone
CN 2,4-Dihydroxy-3,3-dimethylbutyric acid .gamma.-lactone
CN 2-Hydroxy-3,3-dimethyl-.gamma.-butyrolactone
CN 2-Hydroxy-3,3-dimethylbutan-4-olide
CN 3-Hydroxy-4,4-dimethyl-2-oxotetrahydrofuran
CN 3-Hydroxy-4,4-dimethyl-2-tetrahydrofuranone
CN 3-Hydroxydihydro-4,4-dimethyl-2(3H)-furanone
CN Dihydro-3-hydroxy-4,4-dimethyl-2(3H)-furanone
CN DL-Pantoic acid .gamma.-lactone
CN DL-Pantolactone
CN DL-Pantoyl lactone
CN dl-Pantoyl lactone
FS 3D CONCORD
DR 52126-90-6
MF C6 H10 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, CSNB, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



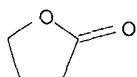
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

294 REFERENCES IN FILE CA (1947 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
295 REFERENCES IN FILE CAPLUS (1947 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s .gamma. butyrolactone
116925 .GAMMA.
636 BUTYROLACTONE
L3 424 .GAMMA. BUTYROLACTONE
(.GAMMA. (W) BUTYROLACTONE)

=> d 423

L3 ANSWER 423 OF 424 REGISTRY COPYRIGHT 2003 ACS on STN
RN 96-48-0 REGISTRY
CN 2(3H)-Furanone, dihydro- (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN .gamma.-BL
CN .gamma.-Butalactone
CN **.gamma.-Butyrolactone**
CN .gamma.-Butyryllactone
CN .gamma.-Hydroxybutyric acid lactone
CN 1,4-Butanolide
CN 1-Oxacyclopentan-2-one
CN 2,3,4,5-Tetrahydro-2-furanone
CN 2-Oxolanone
CN 2-Oxotetrahydrofuran
CN 4,5-Dihydro-2(3H)-furanone
CN 4-Butanolide
CN 4-Deoxytetronic acid
CN 4-Hydroxybutanoic acid lactone
CN 4-Hydroxybutyric acid lactone
CN Butanoic acid, 4-hydroxy-, .gamma.-lactone
CN Butyric acid lactone
CN Butyrolactone
CN Dihydro-2(3H)-furanone
CN NIH 10540
CN Paint Clean G
CN Tetrahydro-2-furanone
FS 3D CONCORD
DR 187997-16-6
MF C4 H6 O2
CI COM
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*,
BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT,
CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM,
CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT,
ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB,
IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC,
PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA,
ULIDAT, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7433 REFERENCES IN FILE CA (1947 TO DATE)
209 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7441 REFERENCES IN FILE CAPLUS (1947 TO DATE)
37 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s 96-48-0
L4 1 96-48-0
(96-48-0/RN)

=> d

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 96-48-0 REGISTRY
CN 2(3H)-Furanone, dihydro- (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

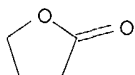
CN .gamma.-BL
CN .gamma.-Butalactone
CN .gamma.-Butyrolactone
CN .gamma.-Butyryllactone
CN .gamma.-Hydroxybutyric acid lactone
CN 1,4-Butanolide
CN 1-Oxacyclopentan-2-one
CN 2,3,4,5-Tetrahydro-2-furanone
CN 2-Oxolanone
CN 2-Oxotetrahydrofuran
CN 4,5-Dihydro-2(3H)-furanone
CN 4-Butanolide
CN 4-Deoxytetronic acid
CN 4-Hydroxybutanoic acid lactone
CN 4-Hydroxybutyric acid lactone
CN Butanoic acid, 4-hydroxy-, .gamma.-lactone
CN Butyric acid lactone
CN Butyrolactone
CN Dihydro-2(3H)-furanone
CN NIH 10540
CN Paint Clean G
CN Tetrahydro-2-furanone
FS 3D CONCORD
DR 187997-16-6
MF C4 H6 O2
CI COM

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*,
BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT,
CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHM,
CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT,
ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, GMELIN*, HODOC*, HSDB*, IFICDB,
IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC,
PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA,
ULIDAT, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7433 REFERENCES IN FILE CA (1947 TO DATE)
209 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
7441 REFERENCES IN FILE CAPLUS (1947 TO DATE)
37 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s cyclopentanone/cn

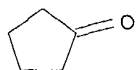
L5 0 CYCLPENTANONE/CN

=> s cyclopentanone/cn

L6 1 CYCLOPENTANONE/CN

=> d

L6 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 120-92-3 REGISTRY
 CN **Cyclopentanone (8CI, 9CI)** (CA INDEX NAME)
 OTHER NAMES:
 CN Adipic ketone
 CN Adipin keton
 CN Dumasine
 CN Ketocyclopentane
 CN Ketopentamethylene
 FS 3D CONCORD
 MF C5 H8 O
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6591 REFERENCES IN FILE CA (1947 TO DATE)
 58 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 6599 REFERENCES IN FILE CAPLUS (1947 TO DATE)
 5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> s propylene glycol methyl ether acetate/cn
 L7 1 PROPYLENE GLYCOL METHYL ETHER ACETATE/CN

=> d

L7 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 84540-57-8 REGISTRY
 CN Propanol, 1(or 2)-methoxy-, acetate (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Propanol, methoxy-, acetate
 OTHER NAMES:
 CN 1,2-Propanediol monoacetate monomethyl ether
 CN Arcosolv PMA
 CN Bawanol PMA
 CN Dowanol PMA
 CN Dowanol PMA-C
 CN Isopropylene glycol monomethyl ether acetate
 CN Methoxypropanol acetate
 CN Methoxypropyl acetate
 CN PGMAC
 CN PGMEA
 CN PM Acetate
 CN **Propylene glycol methyl ether acetate**
 CN Propylene glycol monomethyl ether acetate
 DR 128234-94-6, 122200-84-4, 121077-41-6, 132759-79-6, 93838-74-5, 112708-24-4, 112815-79-9, 89024-54-4, 109975-14-6, 110656-52-5

MF C6 H12 O3
 CI IDS, COM
 SR Commission of European Communities
 LC STN Files: ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS, CHEMCATS, CHEMLIST,
 CHEMSAFE, CIN, CSCHEM, CSNB, MSDS-OHS, NIOSHTIC, PIRA, PROMT, TOXCENTER,
 USPAT2, USPATFULL
 Other Sources: DSL**, EINECS**
 (**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

CRN 67-56-1
 CMF C H4 O

$\text{H}_3\text{C}-\text{OH}$

CM 2

CRN 64-19-7
 CMF C2 H4 O2

$\begin{array}{c} \text{O} \\ || \\ \text{HO}-\text{C}-\text{CH}_3 \end{array}$

CM 3

CRN 57-55-6
 CMF C3 H8 O2

$\begin{array}{c} \text{OH} \\ | \\ \text{H}_3\text{C}-\text{CH}-\text{CH}_2-\text{OH} \end{array}$

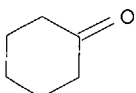
891 REFERENCES IN FILE CA (1947 TO DATE)
 7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 897 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s cyclohexanone/cn
 L8 1 CYCLOHEXANONE/CN

=> d

L8 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 108-94-1 REGISTRY
 CN **Cyclohexanone** (7CI, 8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Anon
 CN Anone
 CN Hexanon
 CN Hytrol O
 CN Nadone
 CN Pimelic ketone
 CN Pimelin ketone
 CN Sextone
 FS 3D CONCORD

MF C6 H10 O
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



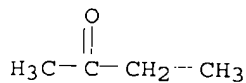
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

22350 REFERENCES IN FILE CA (1947 TO DATE)
 285 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 22377 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s methyl ethyl ketone/cn
 L9 1 METHYL ETHYL KETONE/CN

=> d

L9 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 78-93-3 REGISTRY
 CN 2-Butanone (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 3-Butanone
 CN Butanone
 CN Ethyl methyl ketone
 CN MEK
 CN **Methyl ethyl ketone**
 FS 3D CONCORD
 DR 135311-02-3
 MF C4 H8 O
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20601 REFERENCES IN FILE CA (1947 TO DATE)
179 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
20608 REFERENCES IN FILE CAPLUS (1947 TO DATE)
10 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d his

(FILE 'HOME' ENTERED AT 15:34:50 ON 01 AUG 2003)

FILE 'REGISTRY' ENTERED AT 15:35:08 ON 01 AUG 2003

L1 0 S GAMMA BUTYROLACTONE/CN
L2 427 S GAMMA BUTYROLACTONE
L3 424 S .GAMMA. BUTYROLACTONE
L4 1 S 96-48-0
L5 0 S CYCLPENTANONE/CN
L6 1 S CYCLOPENTANONE/CN
L7 1 S PROPYLENE GLYCOL METHYL ETHER ACETATE/CN
L8 1 S CYCLOHEXANONE/CN
L9 1 S METHYL ETHYL KETONE/CN

=> s su 8/cn

L10 1 SU 8/CN

=> d

L10 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 221273-01-4 REGISTRY
CN SU 8 (photoresist) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN SU 8
DR 488701-12-8
ENTE A negative epoxy-type near-UV photoresist based on Epon SU 8 epoxy resin
from Shell Chemical and licensed to MicroChem Corp., Newton, MA and Sotec
Microsystem, Switzerland (Du Pont)
MF Unspecified
CI PMS, MAN
PCT Manual registration
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
181 REFERENCES IN FILE CA (1947 TO DATE)
182 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s poly and caprolactone

926947 POLY
1598 CAPROLACTONE
L11 1544 POLY AND CAPROLACTONE

=> s polycaprolactone

L12 150 POLYCAPROLACTONE

=> s polycaprolactone polyol

150 POLYCAPROLACTONE
359 POLYOL
L13 1 POLYCAPROLACTONE POLYOL
(POLYCAPROLACTONE(W) POLYOL)

=> d

L13 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN
RN 308080-20-8 REGISTRY *

* Use of this CAS Registry Number alone as a search term in other STN files may result in incomplete search results. For additional information, enter HELP RN* at an online arrow prompt (=>).

CN **Rubber, urethane, butanediol-polycaprolactone polyol-diphenylmethane diisocyanate, block** (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Rubber, urethane, butanediol-caprolactone-diphenylmethane diisocyanate

CN **Urethane rubber, butanediol-polycaprolactone polyol-diphenylmethane diisocyanate, block**

OTHER NAMES:

CN Butanediol-caprolactone-diphenylmethane diisocyanate urethane rubber

CN Butanediol-caprolactone-diphenylmethane diisocyanate urethane rubber, block

CN Pellethane 2102-55D

CN Pellethane 2102-65D

CN Pellethane 2102-90A

CN Rubber, urethane, butanediol-caprolactone-diphenylmethane diisocyanate, block

MF Unspecified

CI MAN, CTS

SR CA

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

=> s polycaprolactone and polyol

150 POLYCAPROLACTONE

359 POLYOL

L14 3 POLYCAPROLACTONE AND POLYOL

=> s l14 not l13

L15 2 L14 NOT L13

=> d 1-2

L15 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS on STN

RN 54735-63-6 REGISTRY

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.-hydro-.omega.-hydroxy-, ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Capa 301

CN Capa 305

CN Capa 310

CN Niax PCP 0300

CN **Niax Polyol PCP 0300**

CN PCL 305

CN PCP 0300

CN Placel 305

CN Placel 312

CN **Polycaprolactone, sru, ester with trimethylolpropane**

CN T 301

CN Tone 030

CN Tone 0301

CN Tone 0305

CN Tone 0310

DR 94896-63-6, 103902-20-1, 112199-54-9, 79029-80-4, 152397-45-0, 92680-69-8, 92680-70-1, 92680-71-2, 149719-11-9, 39280-08-5, 52519-74-1, 220384-95-2

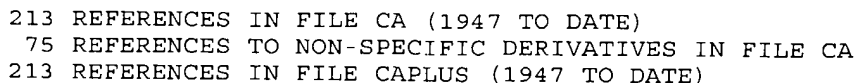
MF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C6 H14 O3

CI PMS, COM

PCT Polyester

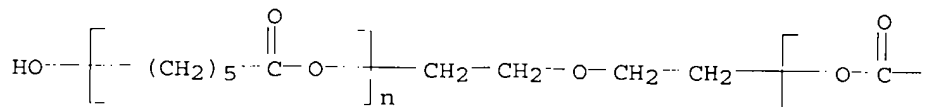
LC STN Files: CA, CAPLUS, CHEMCATS, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, TOXCENTER, USPATFULL

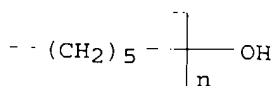
RELATED POLYMERS AVAILABLE WITH POLYLINK



CM 1

PAGE 1-A

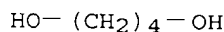




CM 2

CRN 110-63-4

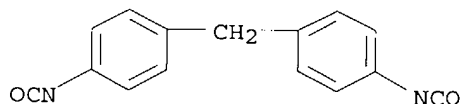
CMF C4 H10 O2



CM 3

CRN 101-68-8

CMF C15 H10 N2 O2



6 REFERENCES IN FILE CA (1947 TO DATE)

6 REFERENCES IN FILE CAPLUS (1947 TO DATE)

=> s tone and lactone

706 TONE

52580 LACTONE

L16 16 TONE AND LACTONE

=> d 1-16

L16 ANSWER 1 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 222405-61-0 REGISTRY

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-butanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,4-Butanediol, polymer with 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI)

CN 2-Oxepanone, polymer with 1,4-butanediol, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI)

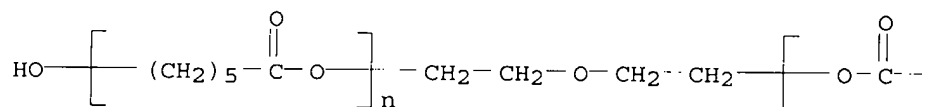
CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, polymer with 1,4-butanediol, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block

(9CI)
 CN Ethanol, 2,2'-oxybis-, polymer with 1,4-butanediol, 1,3-dimethyl
 5-sulfo-1,3-benzenedicarboxylate sodium salt, 5-isocyanato-1-
 (isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and
 .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-
 1,6-hexanediyl)]]], block (9CI)
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-
 ethanediyl)bis[.omega.-hydroxy-, polymer with 1,4-butanediol, 1,3-dimethyl
 5-sulfo-1,3-benzenedicarboxylate sodium salt, 5-isocyanato-1-
 (isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and
 2,2'-oxybis[ethanol]], block (9CI)
 OTHER NAMES:
 CN **1,4-Butanediol-.epsilon.-caprolactone-diethylene glycol-dimethyl**
5-(sodiosulfo)isophthalate-isophorone diisocyanate-Tone 0201 block
copolymer
 MF (C12 H18 N2 O2 . C10 H10 O7 S . (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3 . C6
 H10 O2 . C4 H10 O3 . C4 H10 O2 . Na)x
 CI PMS
 PCT Polyester, Polyester formed, Polyether, Polyurethane, Polyurethane formed
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

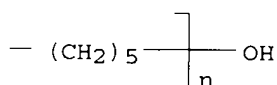
CM 1

CRN 50327-24-7
 CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3
 CCI PMS

PAGE 1-A

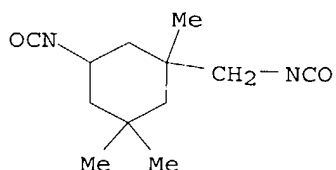


PAGE 1-B



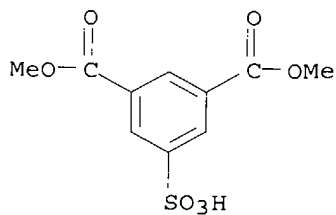
CM 2

CRN 4098-71-9
 CMF C12 H18 N2 O2



CM 3

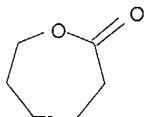
CRN 3965-55-7 (138-25-0)
CMF C10 H10 O7 S . Na



● Na

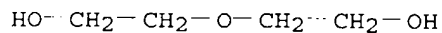
CM 4

CRN 502-44-3
CMF C6 H10 O2



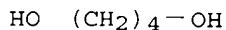
CM 5

CRN 111-46-6
CMF C4 H10 O3



CM 6

CRN 110-63-4
CMF C4 H10 O2



1 REFERENCES IN FILE CA (1947 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 2 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN
RN 222405-56-3 REGISTRY

CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1,2-Ethanediol, polymer with 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate

sodium salt, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]], block (9CI)

CN 2-Oxepanone, polymer with 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]], block (9CI)

CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, polymer with 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 2-oxepanone, 2,2'-oxybis[ethanol] and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]], block (9CI)

CN Ethanol, 2,2'-oxybis-, polymer with 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]], block (9CI)

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, polymer with 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and 2,2'-oxybis[ethanol], block (9CI)

OTHER NAMES:

CN **.epsilon.-Caprolactone-diethylene glycol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate-Tone 0201 block copolymer**

MF (C12 H18 N2 O2 . C10 H10 O7 S . (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3 . C6 H10 O2 . C4 H10 O3 . C2 H6 O2 . Na)x

CI PMS

PCT Polyester, Polyester formed, Polyether, Polyurethane, Polyurethane formed

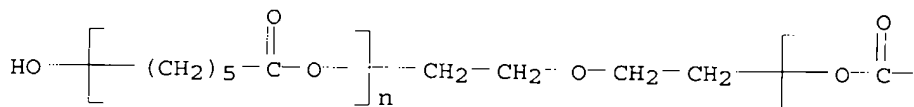
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

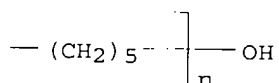
CM 1

CRN 50327-24-7
CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3
CCI PMS

PAGE 1-A

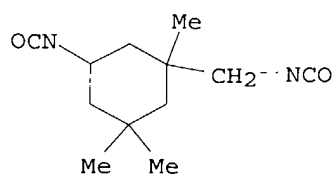


PAGE 1-B



CM 2

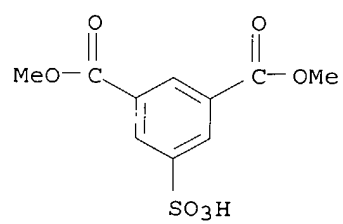
CRN 4098-71-9
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7 (138-25-0)

CMF C10 H10 O7 S . Na

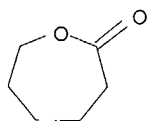


● Na

CM 4

CRN 502-44-3

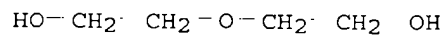
CMF C6 H10 O2



CM 5

CRN 111-46-6

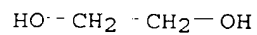
CMF C4 H10 O3



CM 6

CRN 107-21-1

CMF C2 H6 O2



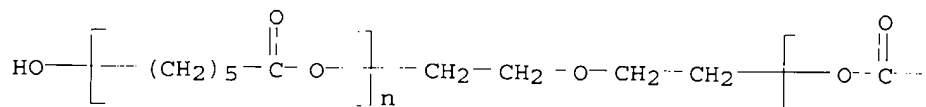
2 REFERENCES IN FILE CA (1947 TO DATE)
 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 2 REFERENCES IN FILE CAPLUS (1947 TO DATE)

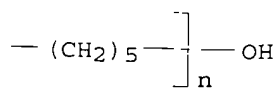
L16 ANSWER 3 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN
 RN 222405-52-9 REGISTRY
 CN 1,3-Benzenedicarboxylic acid, 5-sulfo-, 1,3-dimethyl ester, sodium salt, polymer with 1,4-cyclohexanedimethanol, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 1,2-Ethanediol, polymer with 1,4-cyclohexanedimethanol, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI)
 CN 1,4-Cyclohexanedimethanol, polymer with 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI)
 CN 2-Oxepanone, polymer with 1,4-cyclohexanedimethanol, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI)
 CN Cyclohexane, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethyl-, polymer with 1,4-cyclohexanedimethanol, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 2-oxepanone and .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxypoly[oxy(1-oxo-1,6-hexanediyl)]]], block (9CI)
 CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(oxydi-2,1-ethanediyl)bis[.omega.-hydroxy-, polymer with 1,4-cyclohexanedimethanol, 1,3-dimethyl 5-sulfo-1,3-benzenedicarboxylate sodium salt, 1,2-ethanediol, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-oxepanone, block (9CI)
 OTHER NAMES:
 CN **.epsilonion.-Caprolactone-1,4-cyclohexanedimethanol-dimethyl 5-(sodiosulfo)isophthalate-ethylene glycol-isophorone diisocyanate-Tone 0201 block copolymer**
 MF (C12 H18 N2 O2 . C10 H10 O7 S . C8 H16 O2 . (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3 . C6 H10 O2 . C2 H6 O2 . Na)x
 CI PMS
 PCT Polyester, Polyester formed, Polyurethane, Polyurethane formed
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 50327-24-7
 CMF (C6 H10 O2)n (C6 H10 O2)n C4 H10 O3
 CCI PMS

PAGE 1-A

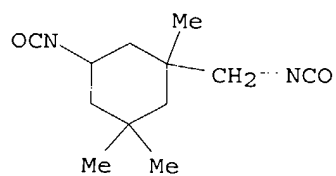




CM 2

CRN 4098-71-9

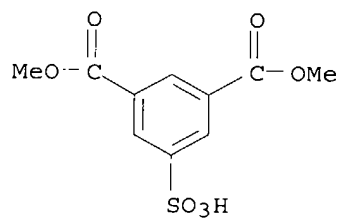
CMF C12 H18 N2 O2



CM 3

CRN 3965-55-7 (138-25-0)

CMF C10 H10 O7 S . Na

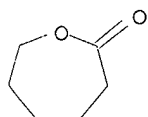


● Na

CM 4

CRN 502-44-3

CMF C6 H10 O2



CM 5

CRN 107-21-1

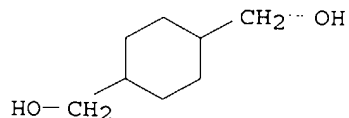
CMF C2 H6 O2

HO-CH₂-CH₂-OH

CM 6

CRN 105-08-8

CMF C8 H16 O2



1 REFERENCES IN FILE CA (1947 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 4 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 152590-73-3 REGISTRY

CN **Gibb-3-ene-1,10-dicarboxylic acid, 2,4a,7-trihydroxy-1-methyl-8-methylene-, 1,4a-lactone, (1.alpha.,2.beta.,4a.alpha.,4b.beta.,10.beta.)-, mixt. with (4-chlorophenoxy)acetic acid and N-(phenylmethyl)-1H-purin-6-amine (9CI) (CA INDEX NAME)**

OTHER CA INDEX NAMES:

CN 1H-Purin-6-amine, N-(phenylmethyl)-, mixt. contg. (9CI)

CN 4a,1-(Epoxy methano)-7,9a-methanobenz[a]azulene, gibb-3-ene-1,10-dicarboxylic acid deriv.

CN Acetic acid, (4-chlorophenoxy)-, mixt. contg. (9CI)

OTHER NAMES:

CN (p-Chlorophenoxy)acetic acid-N-benzyladenine-gibberellin A3 mixt.

CN **Tomatotone-BA-GA3 mixt.**

FS STEREOSEARCH

MF C19 H22 O6 . C12 H11 N5 . C8 H7 Cl O3

CI MXS

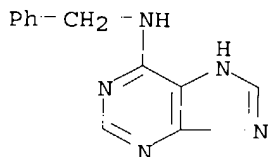
SR CA

LC STN Files: CA, CAPLUS

CM 1

CRN 1214-39-7

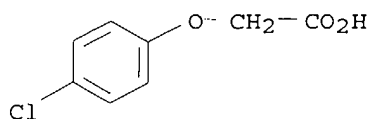
CMF C12 H11 N5



CM 2

CRN 122-88-3

CMF C8 H7 Cl O3

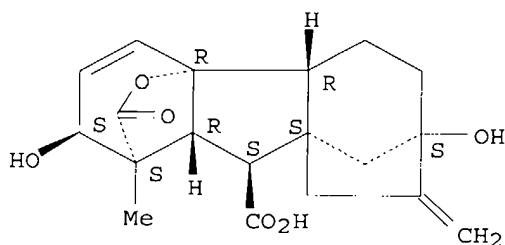


CM 3

CRN 77-06-5

CMF C19 H22 O6

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1947 TO DATE)

1 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 5 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 98914-04-6 REGISTRY

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.-hydro-.omega.-hydroxy-, ester with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), tris[hydrogen 2-butenedioate], (Z,Z,Z)- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Polycaprolactone sru triester with trimethylolpropane maleate

CN Tone 0301 tris(maleate half ester)

MF (C6 H10 O2)n (C6 H10 O2)n (C6 H10 O2)n C18 H20 O12

CI PMS, COM

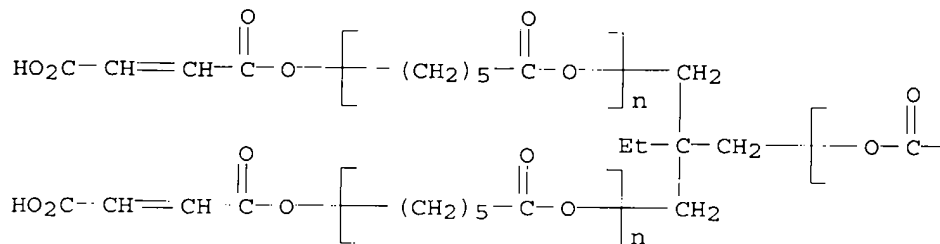
PCT Polyester

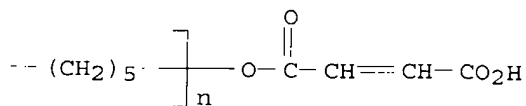
SR CA

LC STN Files: CA, CAPLUS, USPATFULL

RELATED POLYMERS AVAILABLE WITH POLYLINK

PAGE 1-A



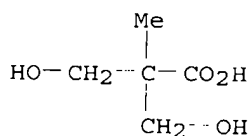


2 REFERENCES IN FILE CA (1947 TO DATE)
2 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 6 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN
RN 72018-10-1 REGISTRY
CN Propanoic acid, 3-hydroxy-2-(hydroxymethyl)-2-methyl-, polymer with
2-oxepanone (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2-Oxepanone, polymer with 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic
acid (9CI)
OTHER NAMES:
CN **.epsilon.-Caprolactone-2,2-bis(hydroxymethyl)propanoic acid
copolymer**
CN **2,2'-Bis(hydroxymethyl)propionic acid-caprolactone copolymer**
CN **2,2-Bis(hydroxymethyl)propionic acid-.epsilon.-caprolactone
copolymer**
CN 2,2-Bis(hydroxymethyl)propionic acid-2-oxepanone copolymer
CN **2,2-Bis(hydroxymethyl)propionic acid-caprolactone copolymer**
CN **Tone A 249**
MF (C6 H10 O2 . C5 H10 O4)x
CI PMS, COM
PCT Polyester, Polyester formed
LC STN Files: CA, CAPLUS, CHEMLIST, USPAT2, USPATFULL
Other Sources: NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

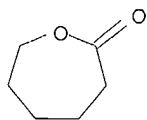
CM 1

CRN 4767-03-7
CMF C5 H10 O4



CM 2

CRN 502-44-3
CMF C6 H10 O2



10 REFERENCES IN FILE CA (1947 TO DATE)

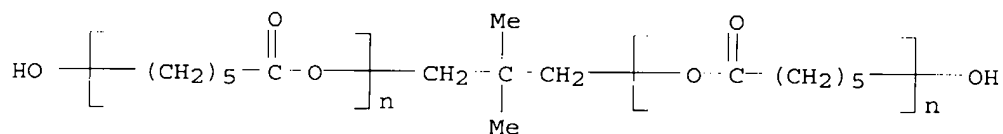
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
10 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 7 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN
RN 59692-51-2 REGISTRY
CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.,.alpha.'-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-hydroxy- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Capa 210
CN Capa 212
CN Capa 214
CN Capa 216
CN Capa 220
CN Capa 222
CN Capa 222LP
CN Capa 223
CN Capa 225
CN Caprolactone homopolymer diester with neopentyl glycol, SRU
CN Polycaprolactone, sru, diester with neopentyl glycol
CN Tone 2201
CN Tone 2221
DR 164458-29-1, 89749-82-6, 87139-43-3, 101026-91-9, 107990-71-6,
168634-77-3, 245063-62-1, 352023-18-8
MF (C6 H10 O2)n (C6 H10 O2)n C5 H12 O2
CI PMS, COM
PCT Polyester
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL

RELATED POLYMERS AVAILABLE WITH POLYLINK



18 REFERENCES IN FILE CA (1947 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
18 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 8 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN
RN 55231-26-0 REGISTRY
CN Hexanedioic acid, polymer with 2-oxepanone and 2,2'-oxybis[ethanol] (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

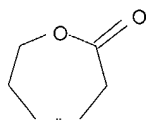
CN 2-Oxepanone, polymer with hexanedioic acid and 2,2'-oxybis[ethanol] (9CI)
CN Ethanol, 2,2'-oxybis-, polymer with hexanedioic acid and 2-oxepanone (9CI)
OTHER NAMES:

CN Adipic acid-diethylene glycol-.epsilon.-caprolactone copolymer
CN D 756
CN Tone D 737
MF (C6 H10 O4 . C6 H10 O2 . C4 H10 O3)x
CI PMS
PCT Polyester, Polyester formed, Polyether
LC STN Files: CA, CAPLUS, CHEMLIST, USPATFULL
Other Sources: NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

CM 1

CRN 502-44-3

CMF C6 H10 O2



CM 2

CRN 124-04-9

CMF C6 H10 O4

HO₂C-(CH₂)₄-CO₂H

CM 3

CRN 111-46-6

CMF C4 H10 O3

HO-CH₂-CH₂-O-CH₂-CH₂-OH

8 REFERENCES IN FILE CA (1947 TO DATE)

4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

8 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 9 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 54735-63-6 REGISTRY

CN Poly[oxy(1-oxo-1,6-hexanediyl)], .alpha.-hydro-.omega.-hydroxy-, ester
with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX
NAME)

OTHER NAMES:

CN Capa 301

CN Capa 305

CN Capa 310

CN Niaux PCP 0300

CN Niaux Polyol PCP 0300

CN PCL 305

CN PCP 0300

CN Placel 305

CN Placel 312

CN Polycaprolactone, sru, ester with trimethylolpropane

CN T 301

CN Tone 030

CN Tone 0301

CN Tone 0305

CN Tone 0310

DR 94896-63-6, 103902-20-1, 112199-54-9, 79029-80-4, 152397-45-0, 92680-69-8,
92680-70-1, 92680-71-2, 149719-11-9, 39280-08-5, 52519-74-1, 220384-95-2

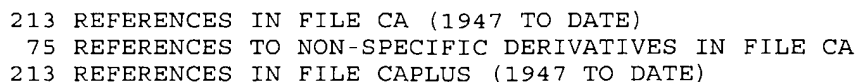
MF (C6 H10 O2)_n (C6 H10 O2)_n (C6 H10 O2)_n C6 H14 O3

CI PMS, COM

PCT Polyester

LC STN Files: CA, CAPLUS, CHEMCATS, IFICDB, IFIPAT, IFIUDB, MSDS-OHS,
TOXCENTER, USPATFULL

RELATED POLYMERS AVAILABLE WITH POLYLINK



****RELATED POLYMERS AVAILABLE WITH POLYLINK****

$$\text{HO} \left[\text{---} (\text{CH}_2)_5 \text{---} \overset{\text{O}}{\parallel} \text{C} \text{---} \text{O} \text{---} \right]_n \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \text{O} \text{---} \text{CH}_2 \text{---} \text{CH}_2 \text{---} \left[\text{---} \text{O} \text{---} \overset{\text{O}}{\parallel} \text{C} \text{---} \right]_m$$
$$\text{---} (\text{CH}_2)_5 \text{---} \left[\begin{array}{c} | \\ \text{---} \\ | \end{array} \right]_n \text{OH}$$

137 REFERENCES IN FILE CA (1947 TO DATE)
73 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
137 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 11 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN
RN 25248-42-4 REGISTRY
CN Poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Poly(oxycarbonylpentamethylene) (8CI)
OTHER NAMES:
CN .alpha.,.omega.-Dihydroxypoly(oxycarbonylpentamethylene)
CN **.epsilon.-Caprolactone homopolymer, SRU**
CN **.epsilon.-Caprolactone polymer, SRU**
CN 2-Methylene-1,3-dioxepane homopolymer polyester sru
CN 2-Methylene-1,3-dioxepane homopolymer, sru
CN 6-Hydroxycaproic acid homopolymer, sru
CN 6-Hydroxycaproic acid polymer, SRU
CN Bakelite LP 50
CN Bakelite LPS 50
CN Bakelite LPS 60
CN Capa 640
CN Capa 6500
CN Capa 656
CN Capa 680
CN **Caprolactone homopolymer, SRU**
CN **Caprolactone polymer, SRU**
CN Celgreen P-H
CN Celgreen P-H 4
CN Celgreen P-H 5
CN Celgreen P-H 7
CN D 510
CN Ethyl 6-hydroxyhexanoate homopolymer, sru
CN HB 05
CN LP 50
CN P 700
CN P 767
CN P 767E
CN P 787
CN PCL
CN PCL 150
CN PCL 700
CN PCL 767
CN PCL 767E
CN PCL-H 5
CN PCLH 1
CN PH 7
CN Placel H
CN Placel H 5
CN Placel PH 7
CN Placel PHB 02
CN **Poly(.epsilon.-caprolactone), SRU**
CN Poly(oxycaproyl)
CN **Polycaprolactone**
CN **Polycaprolactone, SRU**
CN **Tone 300**
CN **Tone 767**
CN **Tone 767E**
CN **Tone P 700**
CN **Tone P 747**
CN **Tone P 767**
CN **Tone P 767E**
CN **Tone P 767EC**
CN **Tone P 784**
CN **Tone P 787**
CN **Tone P 787E**

CN **Tone P 789**
CN **Tone PCL 787**
CN **Tone Polymer P 787**

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
DISPLAY

DR 168042-29-3, 125005-59-6, 123140-40-9, 138265-05-1, 138629-54-6,
73597-49-6, 143180-36-3, 83259-71-6, 160047-47-2, 186511-54-6,
220042-51-3, 250250-94-3, 261714-99-2, 338751-78-3

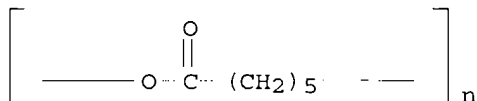
MF (C6 H10 O2)n

CI PMS, COM

PCT Polyester

LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CEN,
CHEMLIST, CIN, EMBASE, IFICDB, IFIPAT, IFIUDb, IPA, PIRA, PROMT, RTECS*,
TOXCENTER, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)

****RELATED POLYMERS AVAILABLE WITH POLYLINK****



5933 REFERENCES IN FILE CA (1947 TO DATE)
2026 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
5938 REFERENCES IN FILE CAPLUS (1947 TO DATE)

L16 ANSWER 12 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 3923-23-7 REGISTRY

CN 6H-Benzofuro[3,2-c][1]benzopyran-6-one, 3-(acetyloxy)-9-methoxy- (9CI)
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN **3-Benzofurancarboxylic acid, 2-(2,4-dihydroxyphenyl)-6-methoxy-,
.delta.-lactone, acetate (6CI, 7CI, 8CI)**

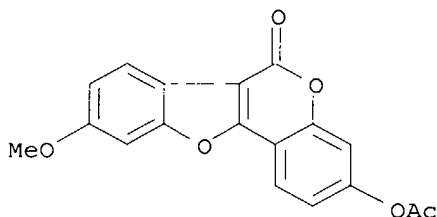
OTHER NAMES:

CN **7-Acetoxy-12-methoxycoumestone**

FS 3D CONCORD

MF C18 H12 O6

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

6 REFERENCES IN FILE CA (1947 TO DATE)
6 REFERENCES IN FILE CAPLUS (1947 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L16 ANSWER 13 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 2074-55-7 REGISTRY

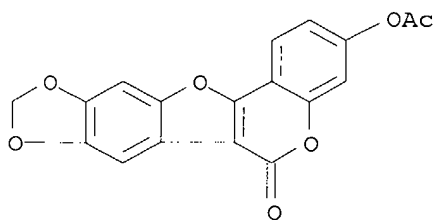
CN 6H-[1,3]Dioxolo[5,6]benzofuro[3,2-c][1]benzopyran-6-one, 3-(acetyloxy)-
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 6H-[1,3]Dioxolo[5,6]benzofuro[3,2-c][1]benzopyran-6-one, 3-hydroxy-, acetate (8CI)
 CN **Furo[2,3-f]-1,3-benzodioxole-7-carboxylic acid, 6-(2,4-dihydroxyphenyl)-, .delta.-lactone, acetate (7CI)**

OTHER NAMES:

CN **7-Acetoxy-11,12-methylenedioxcoumestone**
 CN Medicagol, acetate
 FS 3D CONCORD
 MF C18 H10 O7
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1947 TO DATE)
 5 REFERENCES IN FILE CAPLUS (1947 TO DATE)
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L16 ANSWER 14 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 509-34-2 REGISTRY

CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthen]-3-one, 3',6'-bis(diethylamino)- (9CI) (CA INDEX NAME)

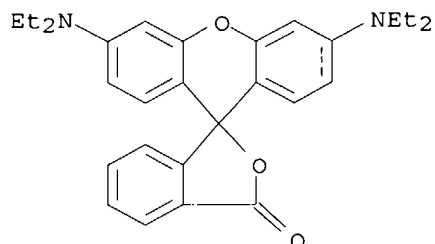
OTHER CA INDEX NAMES:

CN C.I. Solvent Red 49 (7CI)
 CN Fluoran, 3',6'-bis(diethylamino)- (6CI, 8CI)

OTHER NAMES:

CN 3',6'-Bis(diethylamino)-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthene]
 CN Aizen Rhodamine B Base
 CN Aizen SOT Pink 1
 CN Baso Red 546
 CN Baso Red NB 546
 CN Certiquel Rhodamine
 CN **Eljon Magenta Toner**
 CN Fast Oil Pink B
 CN Lacquer Pink S
 CN Neptune Red Base 543
 CN Oil Pink 312
 CN Oil Pink 330
 CN Orient Oil Pink 312
 CN Orient Pink 312
 CN Rhodamine B base
 CN Rhodamine B Base Extra
 CN Rhodamine B Extra Base
 CN **Rhodamine B lactone**
 CN Rhodamine Base B
 CN Rhodamine Base B Extra
 CN Rhodamine Base FB
 CN **Rhodamine S (Russian), lactone**
 CN **Rhodamine S lactone**
 CN Solvent Red 49
 CN Waxoline Rhodamine B
 CN Waxoline Rhodamine BS

FS 3D CONCORD
 DR 12262-50-9, 1326-02-9, 39277-78-6
 MF C28 H30 N2 O3
 CI COM
 LC STN Files: BEILSTEIN*, BIOBUSINESS, CA, CAOLD, CAPLUS, CASREACT,
 CHEMCATS, CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, PIRA,
 SPECINFO, TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

315 REFERENCES IN FILE CA (1947 TO DATE)
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 315 REFERENCES IN FILE CAPLUS (1947 TO DATE)
 6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L16 ANSWER 15 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 502-44-3 REGISTRY

CN 2-Oxepanone (8CI, 9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN **Hexanoic acid, 6-hydroxy-, lactone (6CI)**

OTHER NAMES:

CN **.epsilon.-Caprolactone**

CN **.epsilon.-Hexanolactone**

CN 1,6-Hexanolide

CN 2-Oxooxopane

CN **6-Hexanolactone**

CN 6-Hexanolide

CN **6-Hydroxyhexanoic acid lactone**

CN **Caprolactone**

CN **Caprolactone A**

CN **Epsilon-caprolactone**

CN Hexamethylene oxide, 2-oxo-

CN **Hexanoic acid, 6-hydroxy-, .epsilon.-lactone**

CN Placel M

CN **Tone Monomer EC**

FS 3D CONCORD

DR 67184-99-0, 52004-64-5, 80137-66-2

MF C6 H10 O2

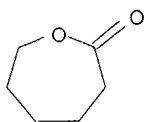
CI COM

LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT,
 CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST,
 CIN, CSCHEM, DETHERM*, DIPPR*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
 IPA, MEDLINE, MSDS-OHS, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE,
 TOXCENTER, USPAT2, USPATFULL

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2388 REFERENCES IN FILE CA (1947 TO DATE)
718 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2392 REFERENCES IN FILE CAPLUS (1947 TO DATE)
67 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L16 ANSWER 16 OF 16 REGISTRY COPYRIGHT 2003 ACS on STN

RN 50-81-7 REGISTRY

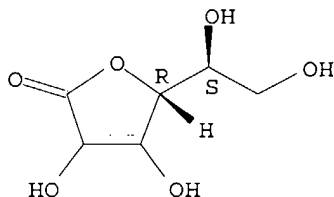
CN L-Ascorbic acid (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN (+)-Ascorbic acid
CN **3-keto-L-Gulofuranolactone**
CN **3-Oxo-L-gulofuranolactone**
CN Adenex
CN Allercorb
CN Antiscorbic vitamin
CN Antiscorbutic vitamin
CN Ascoltin
CN Ascorbajen
CN Ascorbic acid
CN Ascorbicap
CN Ascorbutina
CN Ascorin
CN Ascorsteal
CN Ascorvit
CN C-Quin
CN C-Vimin
CN Cantan
CN Cantaxin
CN Catavin C
CN Ce-Mi-Lin
CN Ce-Vi-Sol
CN Cebicure
CN Cebion
CN **Cebion, .gamma.-lactone**
CN Cebione
CN Cecon
CN Cegiolan
CN Ceglion
CN Ceklin
CN Celaskon
CN Celin
CN Cemagyl
CN **Cenetone**
CN Cereon
CN Cergona
CN Cescorbat
CN Cetamid
CN Cetane
CN Cetane-Caps TC
CN Cetebe
CN Cetemican
CN Cevalin
CN Cevatine
CN Cevex
CN Cevimin

CN Cevital
 CN Cevitamic acid
 CN Cevitamin
 CN Cevitan
 CN **L-3-Keto-threo-hexuronic acid lactone**
 CN **L-threo-Hex-2-enonic acid, .gamma.-lactone**
 ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for
 DISPLAY
 FS STEREOSEARCH
 DR 56533-05-2, 57304-74-2, 57606-40-3, 56172-55-5, 129940-97-2, 14536-17-5,
 50976-75-5, 154170-90-8, 89924-69-6, 30208-61-8, 259133-78-3
 MF C6 H8 O6
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS,
 BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB,
 CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, CSNB, DDFU,
 DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
 ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
 IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHAR,
 PHARMASEARCH, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER,
 TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**, WHO
 (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

57625 REFERENCES IN FILE CA (1947 TO DATE)
 1270 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 57669 REFERENCES IN FILE CAPLUS (1947 TO DATE)
 12 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> log y		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	133.36	133.57

STN INTERNATIONAL LOGOFF AT 15:40:46 ON 01 AUG 2003